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NOVEMBER 1999

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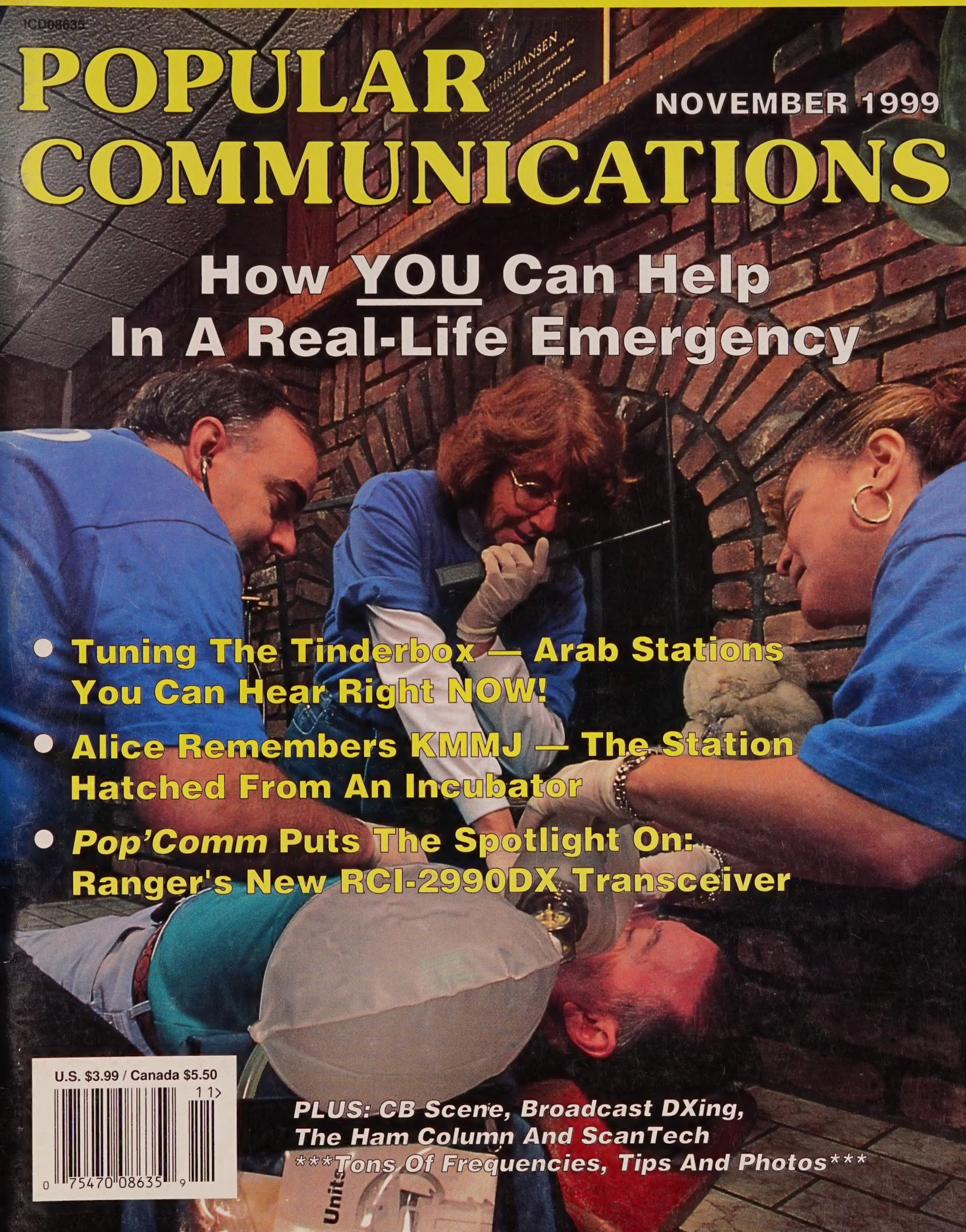

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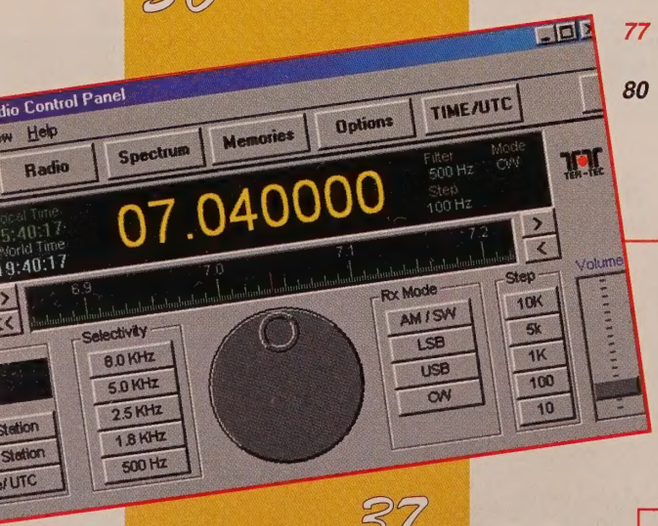

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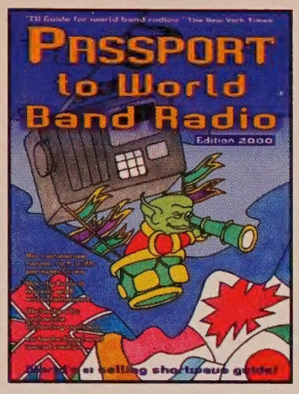

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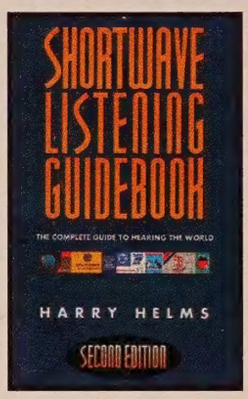

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tuning in

An Editorial

Seizing The Moment

Look at the calendar. And then sit down for a moment with the radios off and the cool fall breeze blowing in the window. Think about where the time has gone. Not just last month, but the last several hundred months — especially if you're in the "oldtimer" category. Pretty scary, isn't it?

Now, think of how *you'd* change things if you could go back a few years; what you'd tell your loved ones and friends, and how you'd conduct your life. What about your weekends and evenings with radio? How would you change what you've done in the radio hobby part of your life? Or would you change anything?

I'm forever griping about all those antique radios and classic CB rigs that we left at the curb or traded-up for the newer and better. One thing I'd do is hold onto those old radios. (I don't know where we'd find room to store them, but it's a good thought anyway). And, personally, I'd also get involved in amateur radio when I was much younger.

They say hindsight is 20-20. The older one gets, the easier it is to agree with that statement. When you're a teenager, or even in your early twenties, you're a scientist, politician, psychologist, teacher, and general expert in so many aspects of life in general, you frequently amaze yourself with your matter-of-fact brilliance. Of course, that changes as you tear off more months on the calendar, and you realize a single career is more than adequate, plenty of other folks are just as smart as you, many have QSL'd 200 more stations than you, and even have more classic radios than you — and, they're neatly displayed in a pristine-looking den with recessed lighting. Big deal: So they had the foresight to hold on to those beautiful old wooden radios and even got their ham license when they were 15, and even use CB for its intended purpose. So what? Doesn't mean anything.

Fact is, it does. And the fact is, as we assess where we are and where we're going — now only 60 days from the next Century — our hobby is, frankly, shrinking. Folks are more into the Internet and the computer. Now, I don't have all the answers (and don't know anyone who does), but it's no secret that all of our super-duper technology that was supposed to give us more *free time* has allowed us to squander our time, much like the ol' TV did (and still does). We sit there at the computer screen and do search after search, surf the Internet until our eyes fall onto the keyboard, and it's still not enough. It's a sort of semi-conscious, self-abusive state. And consequently, we spend less time reading; the books get stuffed in boxes and dragged into the attic — just like those old radios that should be proudly displayed — and yes, used once in a while.

Fact is, here in the U.S., ham radio's small niche in society is getting older, too. You, like me, may still think we're 20, but a quick check in the clothes closet and look in the mirror tells us otherwise. And so we radio folks; hams, SWLs, and even many died-in-the-wool CBers — are aging. Time and technology is going on — with or without you and me. So how can we ensure that ham radio and other equally important aspects of our radio hobby survive well into the next Millennium? It seems to me that our radio hobby has survived past changes in society on its own merit simply because there was nothing there to "threaten" its existence. Logically, it makes sense that we therefore embrace the very technology that keeps youngsters occupied for hours on end: The computer.

Look at the countless new rigs and receivers that are either completely controlled or are enhanced by the computer! I'm not suggesting we ditch our new year-old hotshot radio for a new state-of-the-art computer "black box" radio, but rather than extolling the virtues of Morse code and "how grandpa did things," we should introduce folks to amateur radio, shortwave listening, and scanning with the computer as part of the equation. Take, for example, that brand new two-year-old receiver or transceiver. Chances are pretty good that it can be computer-controlled.

It's time to reach out to young folks wherever you can, showing them what

(Continued on page 76)

BY HAROLD ORT, N2RLL, SSB-596

POPULAR COMMUNICATIONS

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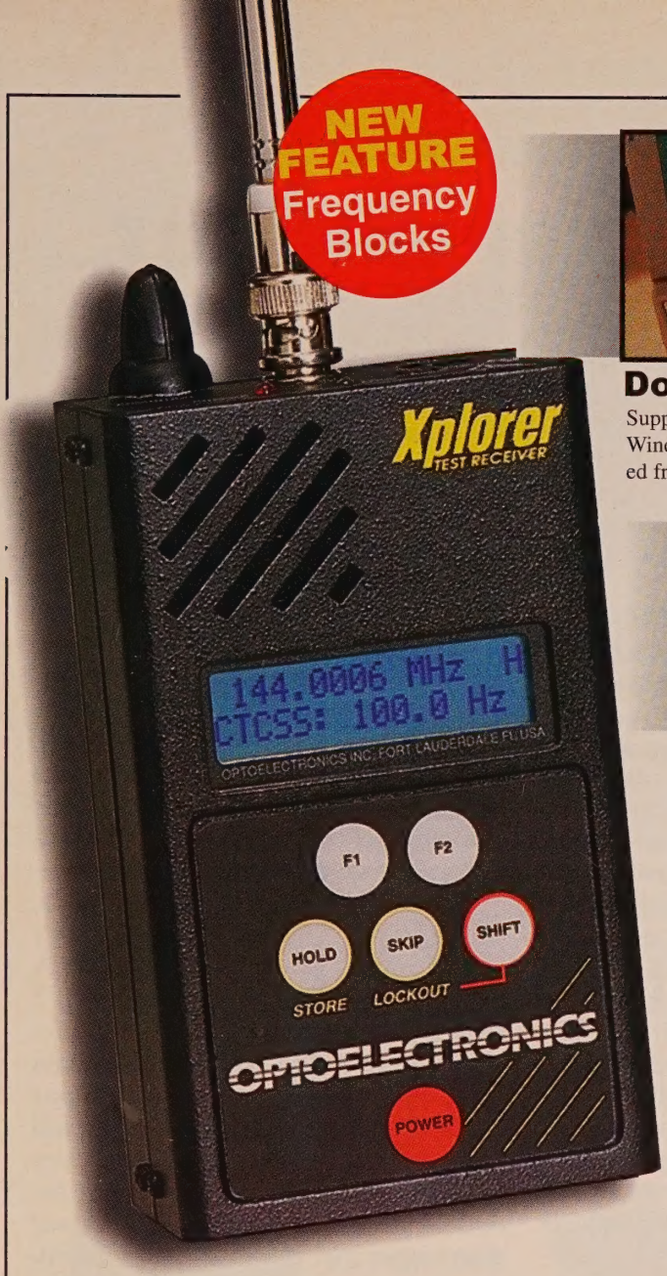

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OUR readers SPEAK OUT...

Each month, we select representative reader letters for this column. We reserve the right to condense lengthy letters for space reasons and to edit to conform to style. All letters submitted must be signed and show a return mailing address or valid E-mail address. Upon request, we will withhold a sender's name. Address letters to: Harold Ort, N2RLL, SSB-596, Editor, *Popular Communications*, 25 Newbridge Road, Hicksville, NY 11801-2909, or send E-mail via the Internet to <popular-com@aol.com>.

Bob's First Trip To Dayton

Dear Editor:

This year was my first trip to the Dayton Hamvention, and I'll be the first to say that it was a first-class radio event! My wife and I bought a truckload of radios and antennas.

I stopped by the CQ booth hoping to meet you, but they said you were at lunch. Maybe I'll make the trip again next year and get a chance to talk with you about radio and scanning.

Sincerely,
Bob Rothman
Pittsburgh, PA

Dear Bob:

Sounds like a plan. You can't miss me — I'm the one with the HT in one hand and hot dog in the other.

Rick Fires Off A Few Rounds

Dear Editor:

I applaud Mr. Terry Jones who wrote a letter regarding government confiscation, seizure, and making life miserable. The subject of his letter was the *Pop'Comm* editorial of March '99 in which you described anti-antenna laws and ordinances. Mr. Jones described perfectly the formation we gun owners have created around the Bill of Rights to keep our civil liberties. Unlike Mr. Jones, I DO own military-style semi-automatic weapons. But just like Mr. Jones, I have a slew of antennas. *Popular Communications* was right to print that March editorial and tell the anti-antenna story.

The solution: We should do a very fast "lock-step" and insist that our ham, CB, and SWL sisters and brothers present a unified defense wall against the intruding government entities that want to take away our antennas. Yes, let's get on the back of the ARRL!! CBers, scanner enthusiasts, SWLs, LOWFERS, UTEs — all of us should take aim at the ARRL and force them to help the whole sport of radio.

Rep. Rick C. Sitz, Ret.
Bradenton, Florida

Small-Minded Operators Cause Big Problems

Dear Editor:

I have been involved with the communications hobby for over seven years now, starting off with an interest with scanner monitoring, CB radio, and now most recently, amateur radio. As an avid reader of your magazine for several years, I have decided to discuss my opinions on the ongoing debates in your magazine, especially in "Pop'Comm P.O.," over the problems with CB and amateur radio bands.

First of all, I have learned that the majority of operators on both amateur radio and CB radio are decent people, and that a small majority of "bad apple" operators cause about 95% of the problems for the radio hobby in general. Although CB does have its share of problems, the amateur bands are no exception. I was recently scanning the HF bands, when I came across a conversation on 80 meters. This particular conversation contained more filth, smut, and ignorance in it than any conversation I have ever heard on 11 meters. I was shocked at what I was hearing, and surprised by such conduct from amateur radio operators who are general class licensees or higher. Did these operators not realize this conversation could be heard in other parts of the world?

I have also encountered my fair share of negative talk about no-code technician amateur radio operators. I have seen many good operators come into the hobby as no-code technicians, and these people have helped to boost the integrity and inspiration for amateur radio that led me to get my license and get on the air. I take this negative no-code talk with a grain of salt, and I do not let it spoil my enjoyment of the amateur radio hobby.

As for the 11-meter CB band, there are plenty of problems there, and this is of no new surprise to anyone. I still work some SSB operations on 11-meters, and I still hear plenty of decent operators on both SSB and AM. So, I must disagree with some readers who seem to think that all hope is gone for this particular band. I do believe the FCC has no intentions of expanding the bands beyond 40 channels or bring to CB "into the new millennium" until they can see that the problems that are on CB are beginning to get cleaned up. Much of this may rest in the hands of the legitimate operators, to police the bands themselves and attempt to reconcile these problem operators. I also think the rift between amateur and CB radio operators is a negative deterrent to the communications hobby. Everyone needs to work together to clean up the bands so that we can all enjoy the airwaves.

73s,
Jesse Risley
KB9TMA
SSB-103

Dear Jesse:

You're right. And certainly every area of the country has these pea-brained ops — CB and amateur. I suppose one could make the point that our radio operators are a mirror reflection of society. And for those so inclined, what better way to vent their anger and show their immaturity than by keying a mic. Wanna bet they'd be the loudest and first to complain if Uncle yanked their licenses, hit 'em with a stiff fine, and confiscated their equipment?

Restore The Public's Right To Monitor The Airwaves

Dear Editor:

Here's a copy of the letter I recently sent to my representatives. "Congress has outlawed scanners that receive certain radio frequencies because some politician's . . . unsecure cell phone conversation was published.

In comparison, should cars be outlawed because people commit traffic violations? As a licensed commercial and amateur radio operator, I feel the burden of security lies with those doing the communicating, not with the general public. Restore the public's right to monitor and make scrambling mandatory on sensitive frequencies."

Sincerely,
Paul J. Kelly, KB1ANJ

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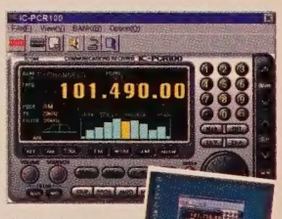

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Tune In The Arab World

It's A Tinderbox Of Radio Activity At Your Fingertips . . .

by Gerry Dexter

Deserts and dictators, camels, fleets of Mercedes, veils, muezzins, oil, belly dancers — one or more of these popular images comes to mind when we tune in on one of the shortwave stations of the Arab world. For many SWLs, the limited amount of English language programming is no deterrent. The music never fails to enthrall, nor do the haunting recitations from the Holy Koran. (SWLs frequently describe this as "chanting"—a politically incorrect description if there ever was one.) And, of course, the muezzin, calling the faithful to prayer five times each day.

Most of the stations aren't difficult to hear, although individual time/frequency pairings may try your patience. And, depending upon such variables as time of day, time of year, direction of the broadcast, your location, and receiver/antenna — not to mention the ever-present possibility that the station may no longer be using that frequency at that time. So a bigger challenge than hearing all the stations is trying to catch as many time/frequency pairings as possible, as well as any new ones you might run across. (The only thing about shortwave which never changes is the constant changes!) Also note that some schedules will be extended by an hour or so on Fridays and may vary even more during the Muslim holy month of Ramadan.

Some of the larger stations, Egypt and Saudi Arabia in particular, broadcast in a number of less-familiar languages which have their own time/frequency pairings. We haven't included these on this list but, rather, limited the list to Arab language broadcasts and also tried to list any English transmissions separately. Algeria includes several language switches within its time slots and these have not been separated.

The Christian religious station in Lebanon, the Voice of Hope, was not included in the listing.

If you're into sending reception reports and collecting QSLs, you'll have easy successes and your trials and tribulations. Jordan is often difficult. Syria sometimes is, too. The others rank at about five on a difficulty scale of zero to 10. Here are the addresses:

ALGERIA
Radio Algiers International
21 Boulevard des Martyrs
Algiers, 16000
Algeria

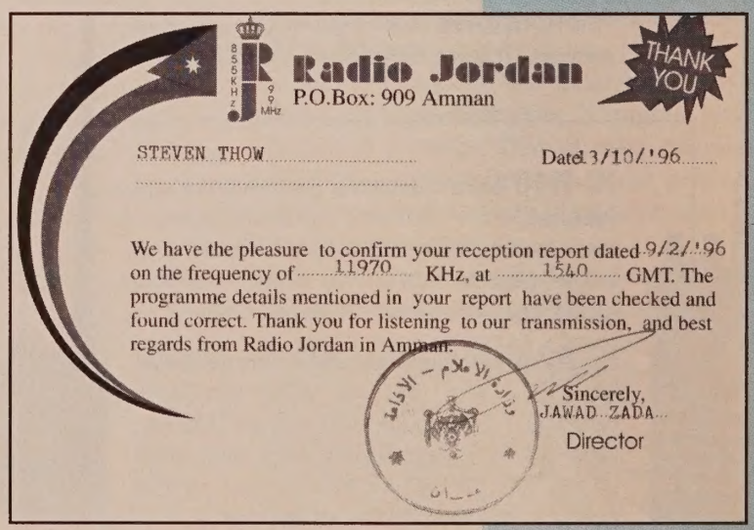
EGYPT
Radio Cairo
P.O. Box 11511
1186 Cairo
Egypt

IRAQ
Radio Iraq International
P.O. Box 8145
Baghdad
Iraq

JORDAN
Radio Jordan
P.O. Box 1041
Amman
Jordan

ROYAUME DU MAROC
Ministère de l'Information
Radiodiffusion Télévision Marocaine
المملكة المغربية
وزارة الإعلام
لاذاعة والتلفزة المغربية
نشكركم على تقرير إستماعكم ونتمنى أن تقضوا أوقاتا ممتعة مع برامجنا
We thank you for your reception report and hopes that you enjoy our programs
Nous vous remercions pour votre rapport d'écoute et espérons que nos programmes vous satisfont
QSL
NAME: GERALD E. GENTRY
FREQ (KHz): 17595
TIME (UTC): 1700
Signé : J. TANANE

Radiodiffusion Television Marocaine QSL'd 17595 with this nice white, green, and red card.


Radio Jordan
P.O.Box: 909 Amman
THANK YOU
STEVEN THOW
Date 3/10/'96
We have the pleasure to confirm your reception report dated 9/2/'96 on the frequency of 11970 KHz, at 1540 GMT. The programme details mentioned in your report have been checked and found correct. Thank you for listening to our transmission, and best regards from Radio Jordan in Amman.
Sincerely,
JAWAD ZADA
Director

Radio Jordan — for many years nearly impossible to QSL — eventually got some QSL cards printed.

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وزارة الاعلام
الشؤون الفنية
ادارة الذبذبات

Dated : 27/9/1988

Dear Listener,

Kindly accept our thanks for your listening reports. we appreciate your cooperation and hope to hear from you again.

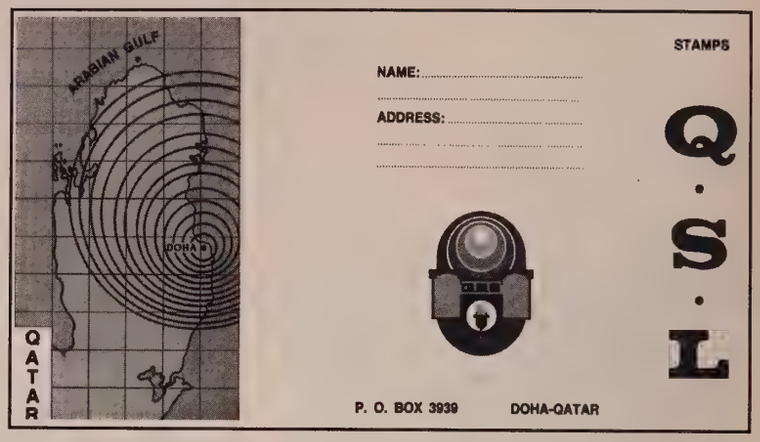
please find herewith enclosed our Short-wave broadcasting schedule for your information.

With regards,

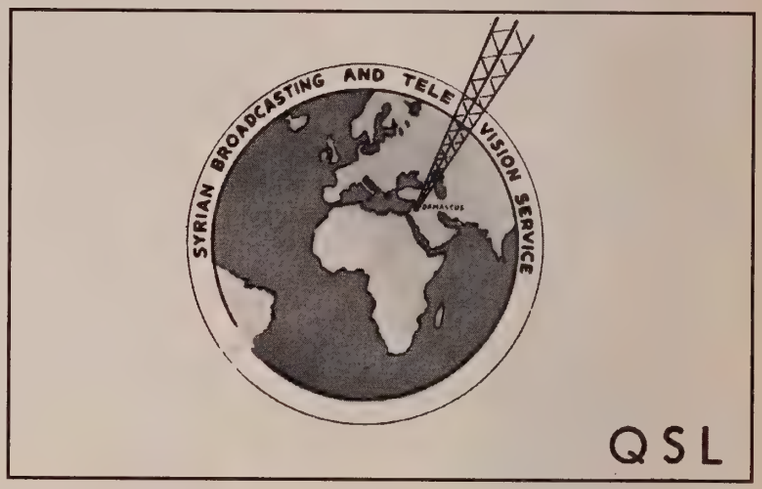
Yours Sincerely,

[illegible] AL SAMNAN
Director,
Frequency Management.
Ministry of Information
[illegible] 11575
P. O. BOX 61718

A QSL letter from the Broadcasting Service of the Kingdom of Saudi Arabia over 10 years ago.



The Qatar Ministry of Information replies for the QBS.



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ARAB STATIONS YOU CAN HEAR

COUNTRY	STATION	FREQUENCY	FROM–TO UTC
Algeria	Radio Algiers	11750	0200–2200
Algeria	Radio Algiers	7245	0300–2200
Algeria	Radio Algiers	15160	1400–2100
Algeria	Radio Algiers	11715	1500–2200
Egypt	Radio Cairo	12050	0200–0000
Egypt	Radio Cairo	9475	0200–0330
Egypt	Radio Cairo	9900	0200–0330
Egypt	Radio Cairo	9755	0200–2200
Egypt	Radio Cairo	15285	0300–0030
Egypt	Radio Cairo	9850	0300–0600
Egypt	Radio Cairo	9620	0350–0700
Egypt	Radio Cairo	9770	0350–0700
Egypt	Radio Cairo	9800	0350–0700
Egypt	Radio Cairo	11980	0600–1400
Egypt	Radio Cairo	15115	0700–1100
Egypt	Radio Cairo	17745	1015–1215
Egypt	Radio Cairo	9850	1100–0000
Egypt	Radio Cairo	17800	1100–1130
Egypt	Radio Cairo	17595	1215–1330
Egypt	Radio Cairo	15220	1300–0600
Egypt	Radio Cairo	17670	1300–1900
Egypt	Radio Cairo	15255	1630–1830
Egypt	Radio Cairo	11785	1700–1500
Egypt	Radio Cairo	9700	1800–0030
Egypt	Radio Cairo	11665	1900–0030
Egypt	Radio Cairo	9900	1900–0330
Egypt	Radio Cairo	11990	2000–2200
Egypt	Radio Cairo	15375	2030–2200
Egypt	Radio Cairo	9900	2215–2245
Egypt	Radio Cairo	15220	2345–0045
Egypt	Radio Cairo	17770	2345–0045
Iraq	Radio Iraq Int'l	11787	0200–0500
Iraq	Radio Iraq Int'l	11787	1100–1400
Iraq	Radio Iraq Int'l	11787	2100–2300
Jordan	Radio Jordan	15435	0100–0100
Jordan	Radio Jordan	9630	0300–0500
Jordan	Radio Jordan	15435	0300–0800
Jordan	Radio Jordan	11810	0300–1400
Jordan	Radio Jordan	11835	0500–0800
Jordan	Radio Jordan	15290	1100–1300
Jordan	Radio Jordan	11690	1100–1730
Jordan	Radio Jordan	13630	1300–1600
Jordan	Radio Jordan	6105	1500–0100
Jordan	Radio Jordan	7155	1500–2100
Jordan	Radio Jordan	9830	1700–2100
Kuwait	Radio Kuwait	11675	0000–0530
Kuwait	Radio Kuwait	6055	0200–1305
Kuwait	Radio Kuwait	15495	0200–1305
Kuwait	Radio Kuwait	15505	0400–0805
Kuwait	Radio Kuwait	15110	0445–0930
Kuwait	Radio Kuwait	17885	0900–1505
Kuwait	Radio Kuwait	13620	0930–1605
Kuwait	Radio Kuwait	15110	1315–1730
Kuwait	Radio Kuwait	9880	1315–2130
Kuwait	Radio Kuwait	11990	1615–1800
Kuwait	Radio Kuwait	15505	1745–0000
Kuwait	Radio Kuwait	9855	1800–0000
Kuwait	Radio Kuwait	15495	1800–0000
Kuwait	Radio Kuwait	11990	1800–2100
Kuwait	Radio Kuwait	15505	1815–1740
Lebanon	Radio Voice of Lebanon	6550	0000–0000
Libya	Radio Jamahiriya	15235	1045–1230
Libya	Radio Jamahiriya	15415	1045–1230
Libya	Radio Jamahiriya	15435	1045–1230
Libya	Radio Jamahiriya	15235	1645–0400
Libya	Radio Jamahiriya	15435	1645–040
Libya	Radio Jamahiriya	15415	1800–0400
Mauritania	Radio Mauritanie	4845	0630–0830
Mauritania	Radio Mauritanie	7245	1200–1600
Mauritania	Radio Mauritanie	4845	1800–0100
Morocco	RTV Marocaine	11920	0000–0500
Morocco	RTV Marocaine	15345	0900–2200
Morocco	RTV Marocaine	15335	1100–1500
Morocco	RTV Marocaine	17595	1400–1700
Morocco	RTV Marocaine	17815	1700–1900
Morocco	RTV Marocaine	15335	2200–0000
Morocco	Radio Medi–un	9575	0500–0100
Oman	Radio Oman	6085	0200–0400
Oman	Radio Oman	6120	0200–0400
Oman	Radio Oman	7230	0200–0700
Oman	Radio Oman	9510	0700–1000
Oman	Radio Oman	15140	0800–1600
Oman	Radio Oman	11890	1000–1400
Oman	Radio Oman	7230	1100–2130
Oman	Radio Oman	7170	1400–1700
Oman	Radio Oman	9735	1600–2130
Oman	Radio Oman	6120	1800–2130
Qatar	Qatar Broadcasting Svc.	11785	0245–0706
Qatar	Qatar Broadcasting Svc.	9570	0245–2130
Qatar	Qatar Broadcasting Svc.	17895	0707–2130

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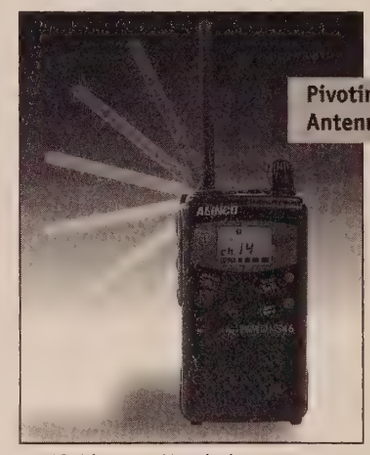

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COUNTRY	STATION	FREQUENCY	FROM–TO UTC
Qatar	Qatar Broadcasting Svc.	11750	1305–1705
Qatar	Qatar Broadcasting Svc.	11820	1705–1306
Qatar	Qatar Broadcasting Svc.	17880	1705–1306
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	9580	1700–2230
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	17895	0255–0600
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	9580	0300–0600
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	9715	0300–0600
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	11820	0300–0600
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	15270	0300–0600
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	15380	0600–0900
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	17560	0600–0900
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	17760	0600–0900
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	11855	0600–1700
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	11785	0900–1200
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	17880	0900–1200
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	21495	0900–1200
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	21505	0900–1200
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	21505	1200–1500
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	21705	1200–1500
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	11785	1200–15600
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	17760	1200–1600
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	11950	1500–1700
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	15275	1500–1700
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	15275	1500–1700
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	15435	1500–1700
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	15435	1500–1700
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	17560	1600–1700
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	11710	1600–1800
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	11785	1600–1800
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	15435	1700–1800
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	9555	1800–2100
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	11950	1800–2100
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	9555	1800–2300
Saudi Arabia	Bc Svc of Kingdom of Saudi Arabia	9870	1800–2300
Sudan	Rep. of Sudan Radio	7200	0300–0830
Sudan	Rep. of Sudan Radio	9200	0300–1500
Sudan	Rep. of Sudan Radio	7200	1200–2300
Sudan	Rep. of Sudan Radio	9200	1700–2300
Syria	Radio Damascus	12085	0600–1600
Syria	Radio Damascus	13610	1600–0030
Syria	Radio Damascus	12085	1800–0030
Tunisia	RTV Tunisienne	7475	0400–0600
Tunisia	RTV Tunisienne	12005	0500–0600
Tunisia	RTV Tunisienne	15450	0500–1710
Tunisia	RTV Tunisienne	17500	0500–1710
Tunisia	RTV Tunisienne	11730	0600–1710
Tunisia	RTV Tunisienne	12005	1710–2300
Tunisia	RTV Tunisienne	7280	1710–2330
Tunisia	RTV Tunisienne	7475	1905–2300
United Arab Em.	UAE Radio — Abu Dhabi	9605	0000–0900
United Arab Em.	UAE Radio — Abu Dhabi	15315	0200–0400
United Arab Em.	UAE Radio — Abu Dhabi	17855	0200–0500
United Arab Em.	UAE Radio — Dubai	15400	0230–0330
United Arab Em.	UAE Radio — Dubai	11945	0330–0400
United Arab Em.	UAE Radio — Dubai	13675	0330–0400
United Arab Em.	UAE Radio — Dubai	15400	0330–0400
United Arab Em.	UAE Radio — Dubai	21485	0330–0400
United Arab Em.	UAE Radio — Dubai	21700	0400–0545
United Arab Em.	UAE Radio — Dubai	15435	0530–0600
United Arab Em.	UAE Radio — Dubai	17830	0530–0600
United Arab Em.	UAE Radio — Dubai	21700	0530–0600
United Arab Em.	UAE Radio — Dubai	13675	0600–0200
United Arab Em.	UAE Radio — Abu Dhabi	13605	0600–0700
United Arab Em.	UAE Radio — Dubai	11950	0600–0900
United Arab Em.	UAE Radio — Dubai	21605	0600–1630
United Arab Em.	UAE Radio — Abu Dhabi	21630	0600–1645
United Arab Em.	UAE Radio — Dubai	15395	0600–2100
United Arab Em.	UAE Radio — Abu Dhabi	17760	0700–1400
United Arab Em.	UAE Radio — Abu Dhabi	17855	0900–1100
United Arab Em.	UAE Radio — Dubai	13675	1030–1055
United Arab Em.	UAE Radio — Dubai	15345	1030–1055
United Arab Em.	UAE Radio — Dubai	15395	1030–1055
United Arab Em.	UAE Radio — Dubai	21605	1030–1055
United Arab Em.	UAE Radio — Abu Dhabi	15315	1100–1300
United Arab Em.	UAE Radio — Abu Dhabi	9605	1300–1700
United Arab Em.	UAE Radio — Dubai	13675	1330–1355
United Arab Em.	UAE Radio — Dubai	15345	1330–1355
United Arab Em.	UAE Radio — Dubai	15395	1330–1355
United Arab Em.	UAE Radio — Dubai	21605	1330–1355
United Arab Em.	UAE Radio — Abu Dhabi	9695	1400–1800
United Arab Em.	UAE Radio — Abu Dhabi	9770	1400–2100
United Arab Em.	UAE Radio — Abu Dhabi	9770	1400–2200
United Arab Em.	UAE Radio — Dubai	11950	1500–0200
United Arab Em.	UAE Radio — Abu Dhabi	15265	1500–1800
United Arab Em.	UAE Radio — Abu Dhabi	6180	1600–0200
United Arab Em.	UAE Radio — Dubai	13675	1600–1640
United Arab Em.	UAE Radio — Dubai	15345	1600–1640
United Arab Em.	UAE Radio — Dubai	15395	1600–1640
United Arab Em.	UAE Radio — Dubai	21605	1600–1640
United Arab Em.	UAE Radio — Dubai	11795	1645–0200
United Arab Em.	UAE Radio — Abu Dhabi	9605	2200–0000
United Arab Em.	UAE Radio — Abu Dhabi	9770	2200–0000
United Arab Em.	UAE Radio — Abu Dhabi	11885	2200–0000

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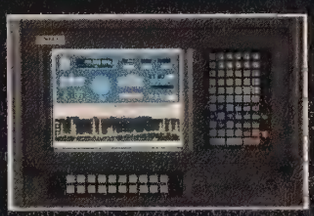

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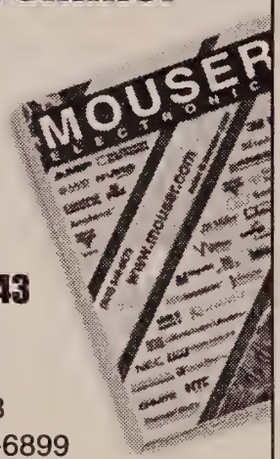

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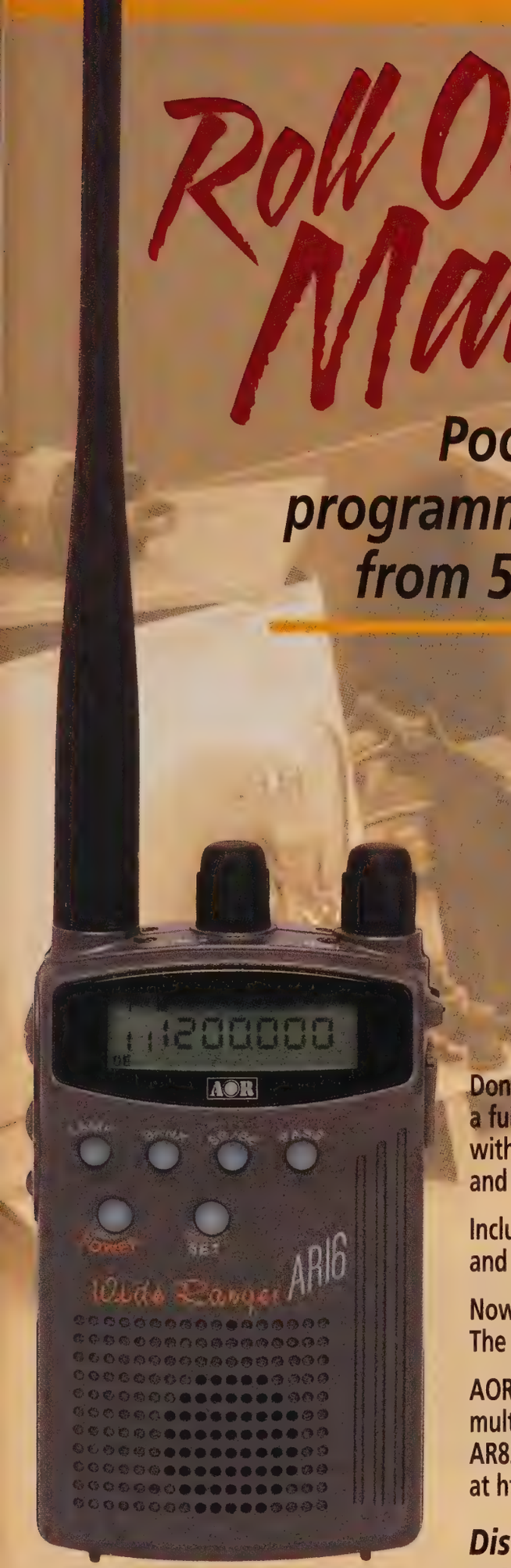

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KMMJ: Hatched From An Incubator

But Nobody Ever Said Mott M. Johnson Was "Chicken"

By Alice Brannigan

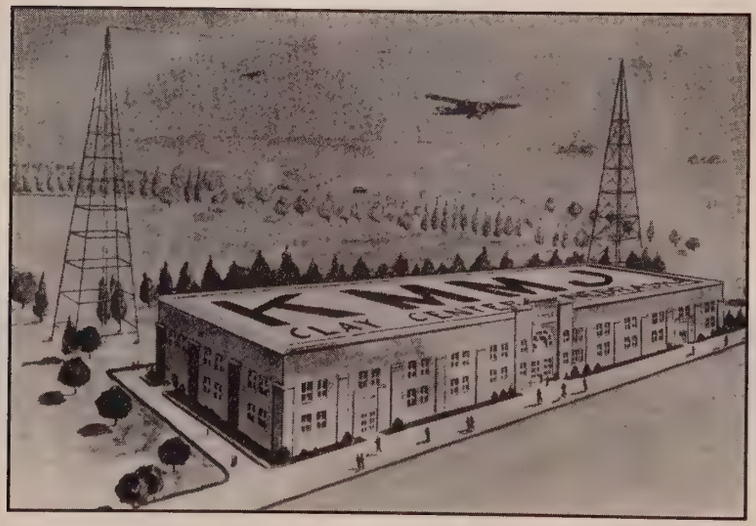
Iowa station KMA was a leading agricultural broadcaster during radio's early days.

KFNF, owned by an Iowa seed company, ran 1 kW and was heard far and wide.

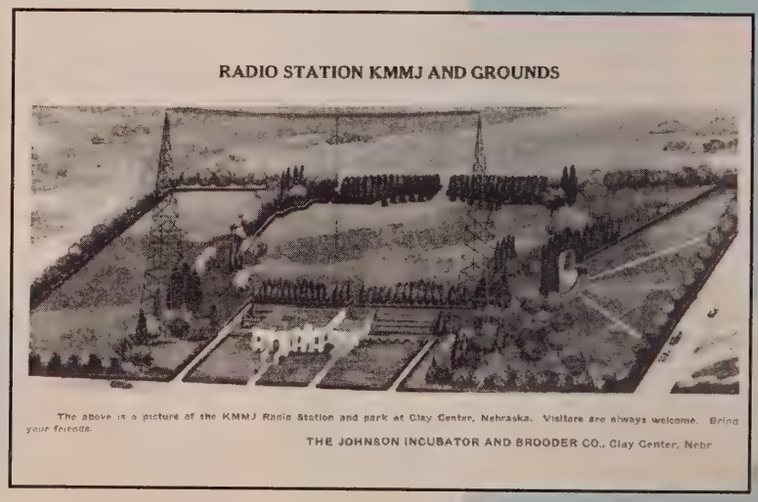
Broadcasting came first to highly-populated major metropolitan areas, but rural areas followed as soon as someone remembered that farmers and ranchers also constituted a vast potential audience. Companies engaged in agricultural businesses opened numerous early stations. The 500-watt May Seed and Nursery Company station, KMA, and rival Henry Field Seed Company's 1 kW KFNF, both in Shenandoah, Iowa, were two of the most elaborate and famous of these stations.

The majority of other agri stations were not as showy, being along the lines of hometown operations. Official records of 1928-era Nebraska stations, for instance, indicate KGDW (100 watts) operated by the Rist Plainview Hog and Seed Farm; KGCH (250 watts) operated by the Farmers and Merchants Cooperative Co.; WAAW (500 watts) operated by the Omaha Grain Exchange; and KGBZ (100 watts) run by George Miller's Federal Livestock Remedy Company.

From 1920 to 1925, the only industry in rural Clay Center, Nebraska, was the



This highly-idealized artist's version of KMMJ's first facilities was somewhat of an exaggeration, possibly to impress listeners.


RADIO STATION KMMJ AND GROUNDS
The above is a picture of the KMMJ Radio Station and park at Clay Center, Nebraska. Visitors are always welcome. Bring your friends.
THE JOHNSON INCUBATOR AND BROODER CO., Clay Center, Nebr

Another artist's rendition of the original KMMJ facilities and surrounding park is rather accurate. (From the National Archives, courtesy Jan D. Lowry, Broadcast Pro-File, Calif.)

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M.M. Johnson Company, manufacturers of Old Trusty brand incubators and brooders. But all that changed in 1925 when Mott M. Johnson boldly decided to set up a broadcasting station in his small community. Johnson at first proposed that his new station carry the call letters KOTI, standing for Old Trusty Incubators. On second thought, he felt the station should be known as KMMJ, representing his initials, as well as those of his company. On July 19, 1925, KMMJ was authorized to operate on 1310 kHz, and with its powerful 1 kW signal, it would have sufficient juice to easily serve listeners for many miles beyond the borders of Clay Center.

In early September, a new Western Electric 1 kW transmitter was installed by Chief Engineer Jim Gwynn (9BDK) at the station's Glenville and Martin Avenue site, a park at the center of town. Two 150-foot lattice towers were erected, 300 feet apart, in order to support a "T"-type antenna. The station was completed on November 30th, and went on the air that evening. The official license was issued on December 7th, 1925. Among KMMJ's early features was its own Old Trusty Orchestra, as well as the Saronville Victory Orchestra, and Snoddy's Orchestra. There was a daily organ recital, plus amateur talent, and farm news.

Less Is Better?

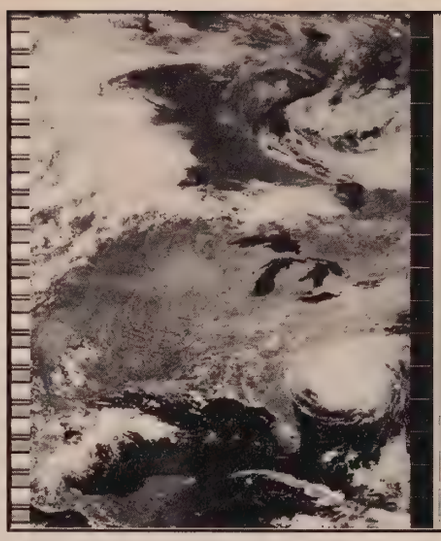
In early 1927, KMMJ was told to cut its power to 500 watts, and later that year, it was ordered to shift to 1050 kHz, where it could keep its 500 watt daytime power, but could run only 250 watts at night. In November of 1927, it was shifted to 740 kHz, where its schedule was reduced to limited (daylight only) hours. This was in order to protect WSB, Atlanta, Georgia, which had exclusive nighttime use of 740 kHz. But Johnson didn't brood for very long, because by late 1928, KMMJ had received approval to resume operation with 1 kW.

In March of 1936, KMMJ was sold to the Town Farm Company. The sale included the 135 Old Trusty General Stores retail outlet chain, as well as Johnson's interest in a weekly newspaper called The Clay Center Sun. Mott M. Johnson had become the Station Manager in 1935. After the sale, he stayed on until 1939 as KMMJ's Program Director.

KMMJ's farm-oriented programs were very popular. The studio-transmitter location was known as Clay Center's "Radio Building." It contained a 400-seat auditorium, which was nearly large enough to hold half of Clay Center's population of 933. KMMJ called itself "The Old Trusty Station."

On The Move

In September of 1938, KMMJ wanted to move to the big city. The FCC approved the station to relocate to Grand Island, Nebraska. In January of 1939, the studios



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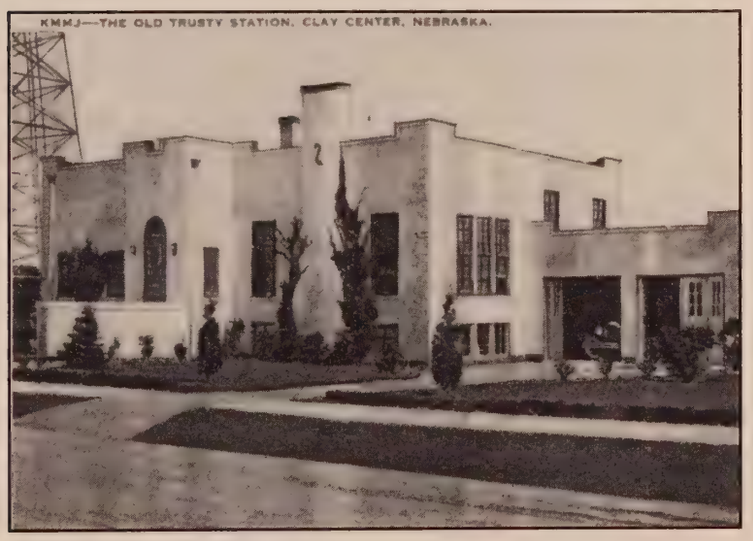
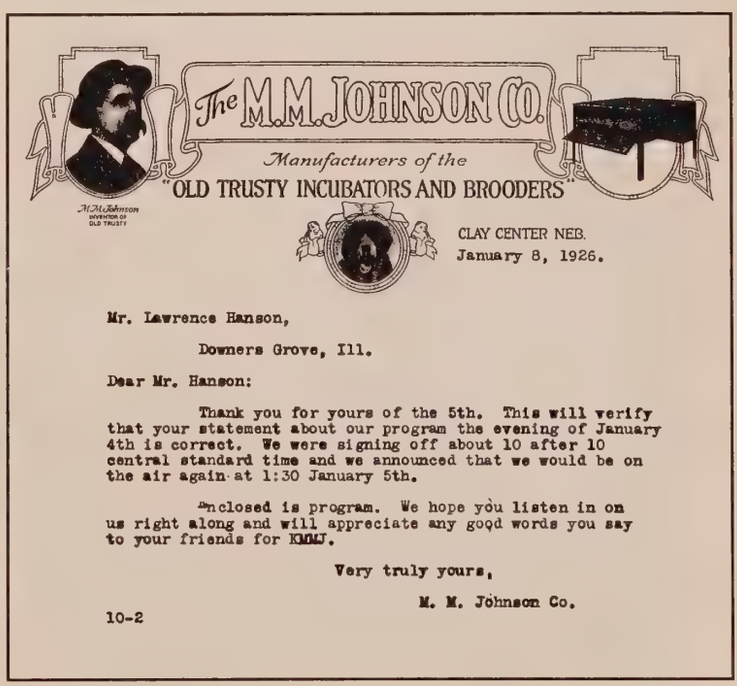


A closer look at the first KMMJ facility via an early 1930s postcard.

This veri letter dated 1926 displays an ornate letterhead. (Courtesy Larry Flegle, KC4AXQ.) ➔



The M.M. JOHNSON CO.
Manufacturers of the
"OLD TRUSTY INCUBATORS AND BROODERS"

CLAY CENTER NEB.
January 8, 1926.

Mr. Lawrence Hanson,

Downers Grove, Ill.

Dear Mr. Hanson:

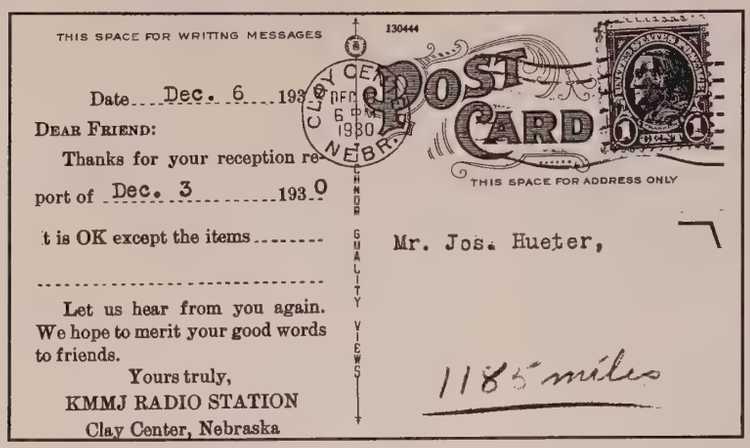
Thank you for yours of the 5th. This will verify that your statement about our program the evening of January 4th is correct. We were signing off about 10 after 10 central standard time and we announced that we would be on the air again at 1:30 January 5th.

Enclosed is program. We hope you listen in on us right along and will appreciate any good words you say to your friends for KMMJ.

Very truly yours,

M. M. Johnson Co.

10-2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POST CARD

THIS SPACE FOR ADDRESS ONLY

Date Dec. 6 193

DEAR FRIEND:

Thanks for your reception re-

port of Dec. 3 193

't is OK except the items

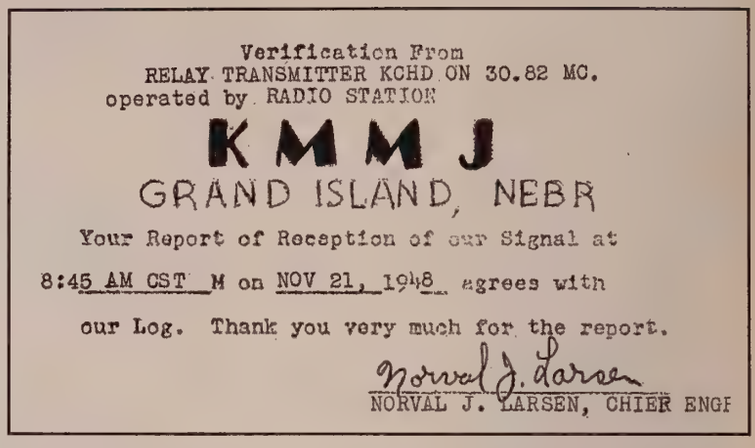
Let us hear from you again. We hope to merit your good words to friends.

Yours truly,
KMMJ RADIO STATION
Clay Center, Nebraska

Mr. Jos. Hueter,

1185 miles

By 1930, KMMJ had switched to a simple postcard to verify reports. (From the collection of the late Joe Hueter, now in the Popular Communications *archives.)*


Verification From
RELAY TRANSMITTER KCHD ON 30.82 MC.
operated by RADIO STATION

KMMJ

GRAND ISLAND, NEBR

Your Report of Reception of our Signal at

8:45 AM CST M on NOV 21, 1948 agrees with

our Log. Thank you very much for the report.

Norval J. Larsen

NORVAL J. LARSEN, CHIEF ENGR

KMMJ's 30 MHz remote pickup station, KCHD, sent this QSL in 1948. (Courtesy Tom Kneitel, K2AES.)

were relocated to 315-1/2 Locust Street, Grand Island. The transmitter was moved to Phillips, Nebraska, 14 miles from the new studios. A 325-foot Truscon vertical radiator was installed. Everything was ready to go on May 1, 1939.

The national frequency shuffle of March 29, 1941, caused KMMJ to shift from 740 kHz to 750 kHz, and remain silent at night to protect WSB. In October of 1943, new studios were completed at the corner of Division and Cedar Streets in order to replace the cramped Locust Street facility. The new studios contained a 125-seat auditorium. In 1943, KMMJ affiliated with the Blue Network (formerly the NBC-Blue Network). In June, 1945, the Blue Network changed its name to the American Broadcasting Company.

As a sad post script to KMMJ's early days, during the winter of 1952–53, the station's former Clay Center quarters burned to the ground. It was a spectacular blaze that took 36 hours to extinguish. Only the bare cement floor and tower bases remain in the city park.

Expansion Time

In late May, 1958, KMMJ received permission to increase its power from 1 kW to 10 kW. A directional array was installed at that time. The station's ownership was reorganized in April of 1960 to reflect positive control of licensee by Don Searle, KMMJ's CEO and, in 1966, its president. Searle had been with KMMJ since 1936 as General Manager, as well as a stockholder. The ABC affiliation was dropped in 1963, as KMMJ became a member of the Mutual Broadcasting System.

As of November, 1967, KMMJ was sold for $450,000 to United Communications, Inc. The new owners discontinued MBS affiliation in early 1968. As of September 3, 1969, the station was authorized for pre-sunrise operation with 500 watts.

Calling itself "Farm and Home Radio," by 1974, KMMJ was running a middle-of-the-road (MOR) music program format. A year later, the ratio of farm programming to music was increased.

Sales Galore

The station was sold again at the beginning of 1977. Forum Communications (a subsidiary of the company that owned the "Fargo Forum" newspaper in North Dakota) paid $630,000, plus an additional $41,000 paid to the former owners not to compete. In 1978, KMMJ again joined Mutual Broadcasting.

The MOR music format was dropped in 1983, being replaced by a light country music format, supplemented by farm programming. A year later, KMMJ was sold to the Clinton Broadcasting Company for $855,000. Studios and offices continued at 205 South Cedar Street, Grand Island. A company known as KMMJ Inc. (headed by the President of the Fargo Forum publishing interests) purchased KMMJ in March of 1989 for an undisclosed sum. In 1991, KMMJ joined NBC's "Talknet" for its nighttime talk programming.

New offices and studios were opened in 1992. This facility was at Suite 200, 3280 Woodridge Boulevard. At that time, the license name was changed to Cornhusker Radio Inc. Simultaneously, NBC's "Talknet" was discontinued in favor of a country music format delivered by satellite from SMN of Dallas.

In February of 1995, Cornhusker sold KMMJ to Prairie States Broadcasting Inc. for $186,000. By April, the country music format was retired and replaced by news/talk programming. The long affiliation with MBS also ended that year. In September, Prairie States turned around and sold KMMJ to JRK Broadcasting LP for $700,000 (included in the price was KRGI, another AM/FM station in Grand Island). Soon after, KMMJ relocated to the existing KRGI studio site at 3205 W. North Front Street. The transmitter site remained at Phillips, Nebraska.

These days, KMMJ is the sixth oldest continuously-licensed broadcaster in Nebraska. It operates on 750 kHz with 10 kW (directional antenna at all hours to protect station WSB). It is an independent outlet running a news/farm/talk programming format from sunrise to local sunset. KMMJ's studios and offices remain at 3205 W. North Front Street, Grand Island, Nebraska.

Our thanks to Broadcast Pro-File for granting us permission to excerpt information from their extensive report on KMMJ. BP-F is a professional broadcast research service that, for a nominal fee, can provide highly-detailed historic reports for any American AM or FM broadcast facility, past or present. A complete BP-F catalog is available for $1 from: Broadcast Pro-File, 28243 Royal Road, Castaic, CA 91384.

We are always interested in receiving old time radio QSL cards and letters (good photocopies will do if you wish to retain the originals), station postcards and photos, station directories, news clippings, and anecdotes. Our snail mail address is Alice Brannigan, *Popular Communications*, 25 Newbridge Road, Hicksville, NY 11801. Our direct E-mail address is <Radioville@juno.com>. ■

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- Noise reduction signal processing adjustable in 256 steps.
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CIRCLE 164 ON READER SERVICE CARD

radio & the internet

Pop'Comm's Cyber Sleuth Checks Out Online Resources

Online Military And Government Manuals Offer Tons Of Information!

A few days ago, I finally bit the bullet and thoroughly cleaned out my desk. Crumpled behind one of the drawers and covered with cobwebs was an old "mimeographed" document — a copy of my orders to report for active duty. Remembering those days, and how the difference between a ".0" and ".1" caused me to miss out on 16 weeks of specialized radio communications training, prompted some of the research for this month's column.

After leaving boot camp, I was SUPPOSED to be trained as a Combat Radio Specialist. However, due to a clerk typing an incorrect Military Occupational Specialty code (MOS) of 311.1 instead of 311.0, the Army considered me fully trained. Over my protests (a Private E-2 doesn't have much clout), I was shipped out to work in a job that I hadn't a clue about. Anyway, I began to reminisce about the many training and technical publications I had frantically reviewed in trying to get up to speed. I also recalled that many of them contained some pretty decent and easily understood material. Wondering what was "out there" today, I did a little research and was pleasantly surprised. I think you will be too!

The "General Dennis J. Reimer Training and Doctrine Digital Library" is probably the best general coverage military resource around for complete manuals and training material. While intended primarily for military personnel, much of the library's content is unrestricted and available to the general public. Being the single repository of approved Army training and doctrine information, this comprehensive resource is a must visit (and bookmark) site. Due to heavy usage and maintenance downtime occurring without warning, the server may be slow or not available when you visit. But don't give up. Keep trying until you're successful — it's well worth the effort. You'll find the main page, where you can explore the entire library, at **<http:// 155. 217.58.58/atdls.htm>**.

TIP: When searching for information in government or military manuals, don't rely totally on a publication's title. ALWAYS browse the TABLE OF CONTENTS and REFERENCES sections of any manual you think might be even remotely related. This is particularly true with respect to Field Manuals (FMs). Quite often, reviews of related topics are provided to insure some base level knowledge before proceeding with the specific theme of the manual. The Table of Contents will provide that type of

BY ERIC FORCE <eforce@eticomm.net>

overview. In many cases, the References section will point you to sources of greater interest or more specific to the topic at hand. The two Army Field Manual pointers below, for FM 24-18 and FM 5-125, illustrate how a title can be misleading. Also remember, in most cases, you do NOT have to retrieve an entire manual if you only want or need part of it. Most information is available at the above library on a chapter by chapter basis in both HTML and PDF versions.

Army Field Manual FM 24-18

This FM is titled "Tactical Single-Channel Radio Communications Techniques" and includes a discussion of radio fundamentals, antennas, and radio-wave propagation. Chapter three, "Antennas," is particularly good with many illustrations. Although published in 1987, it still represents a valuable addition to your reference library. Download your copy from **<http://155.217.58.58/cgi-bin/atdl.dll/fm/24-18/fm24-18.htm>.**

Army Field Manual FM 5-125

Titled "Rigging Techniques, Procedures, and Applications," this FM is a particularly good example that might be summarily dismissed given our interest in radio communications. However, if you're setting up a temporary antenna, stabilizing a tower during construction or have a need to secure, hoist, or move anything with rope, then Chapter 2 — "Knots, Splices, Attachments, and Ladders" is for you! Hands down, this is easiest guide to tying knots and splicing I've come across. (Scoutmasters take.) Tie safe, secure knots and impress your family and friends! If you want to move your entire radio shack across the yard, get the whole manual. But for just knots, pick up chapter two at: **<http://155.217.58.58/cgi-bin/atdl.dll/fm/5-125/Ch2.htm>**.

Need Help With Formulas?

Better get the GRAPHIC TRAINING AID, GTA 11-2-6, "DC/AC Formula Data" which is a 12-step reference booklet for basic electronic formulas and information. Diagrams and tables include Metric Terms, Resistor Color Code, DC Circuits, Symbols, AC Circuits, Capacitor, Inductor, Transformer Relationships, Series and Parallel Resonant Circuits Summary, and Using Meters. The online version of this nifty little reference can be found at **<http://155.217.58.58/cgi-bin/atdl.dll/gta/11-2-6/110206top.htm>**.

Another resource is the National Technical Information Service (NTIS). While not providing material for free, they do represent an excellent (although expensive) source for publications that might be unavailable elsewhere. The NTIS distributes Army technical manuals (TMs), field manuals (FMs), Army regulations (ARs), technical bulletins (TB), and other similar publications to the general public under arrangement with the U.S. Army Publishing agency. You can search the database of 14,000 or so Army publications by keywords, title, or

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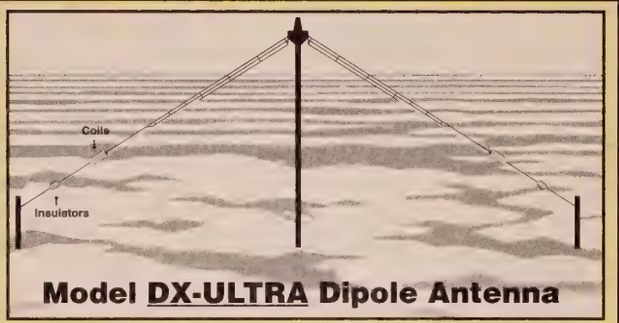

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publication numbers to determine pricing and availability. For reference, NTIS sells FM 24-18, noted above, for $54.00 plus $5 S&H! After you've downloaded the free version above, use part of the savings to re-subscribe to *Popular Communications*. Check out NTIS at **<http://www.ntis.gov/databases/armypub.htm5>**.

Online CB Radio Resources

"The NEW CB Radio Resources on the 'Net" Website is a great place to start your online CB radio research. In addition to FCC rules, Operating Guides, and other information, you'll find a VERY large "CB Related Links" page pointing to Business, Government, Personal, and other CB Radio resources. It will be well worth your time to visit some of the sites included on that page. Rounding out things is a Message Board where you are permitted to post personal CB-related classifieds and a URL submission form for visitors with CB-related Websites wishing to be listed. The site also promotes a unique sponsorship program offering advertising space in exchange for old, or no longer needed, CB equipment to be distributed to crime watch groups, and other non-profit organizations. Check it all out at **<http://rob.acol.com/~cb/>**.

AM/FM Radio Stations On The Internet

The MIT List of Radio Stations on the Internet is probably the most comprehensive list currently available on the web. In addition to providing links to over 8,000 AM & FM stations, FCC-based technical information is also available. There's a good chance you'll find your favorite stations on the list. Visit **<http://wmbr.mit.edu/stations/>**.

RealPlayer G2 — Streaming Media For Your Computer

While we're talking about stations on the 'net, if you haven't upgraded your system to handle "Streaming Media," you really should. To NOT have that capability, particularly when the basic software is free, would be akin to being satisfied with those tiny internal PC speakers of the '80s, as opposed to today's full-blown, integrated, sound systems.

Until about five years ago, distribution of audio material over the Internet meant downloading entire files before being able to play them. Having to wait an hour or more before hearing a single sound was not uncommon. But times have changed — significantly! In 1994, a company called Progressive Networks (later changed to RealNetworks) solved the problem with an innovative Streaming Audio product now known as RealAudio. Today, thanks to their pioneering and the advancement of computer technology in general, CD-quality stereo sound (including full multimedia presentations using similar technology) can be enjoyed almost instantly, as well as listening to an incredibly diversified assortment of broadcasting in real time — all online and from your PC!

I could go on for pages about this exciting (and amazing) technology, but suffice it to say, if you don't have it, get it! Your FREE copy of the RealPlayer G2 is available at the RealNetworks URL shown below. They also have a RealPlayer Plus G2 for sale (which is easily mistaken for the free version) so just look for and click the small "FREE RealPlayer G2 — Download Now" icon. The "Plus" version, which sells for about $30, might be of interest to those with more sophisticated audio and video needs. Regardless, I'd recommend the free version first to explore the capabilities then upgrade later if desired. Also be sure to browse the entire RealNetworks site for tons of additional information and links to multimedia sites utilizing their technology. Surf on over to **<http://www.real.com/>**.

RealPlayer G2 — Some Communications-Related Picks

Now that you have your RealPlayer G2 up and running, let's take it on a test run and listen to a few samples of the RealAudio technology being used in radio communication applications.

Amateur Radio Newsline is produced weekly as an audio service by Newsline, a service of the Westlink Radio Network and hosted by the Tucson Amateur Packet Radio club. Here, you will hear the latest from the world of Amateur Radio. A large archive of prior "broadcasts" is also maintained. Programs run about 20 minutes or so. Check out **<http://www.tapr.org/newsline/index.html>**.

Here are a couple of "scanner type" links. The first, from PoliceScanner.com is at **<http://www.policescanner.com/>** and provides live dispatch broadcasts of police and fire departments. The second, at **<http://www.netnowonline.com/scanner/index.html>** is from "netnowonline," and offers similar transmissions.

Listen to amateur radio repeaters in the Washington, D.C. area via an Internet ham radio receiver: "The Amateur Radio Listening Post" is hosted by the NIH Radio Amateur Club and uses an ICOM R7000 receiver. In addition to several "presets," you can manually select any frequency in the range of 25 MHz to 1.00 GHz. Give it a try at **<http://speed.nimh.nih.gov/listener/ralistener.html>.**

Try the Ten-Tec computer-controlled receiver at N2JEU's Web Controlled Ten-Tec RX-320 site. The effective frequency range is 500 to 29999.999 kHz. FM mode was not available when I visited. Check it out at **<http://hamshack.ralabs.com/cgi-bin/webradio.exe>**.

For the aviation buff, here's the Dallas/Fort Worth Airport. Listen in as air traffic controllers direct airplanes in and around the Dallas/Fort Worth control area. One of the neat things about most aviation-related transmissions heard via an Internet interface is that you get to hear BOTH sides of the conversation. It's usually easy to pick up high-flying aircraft with your receiver/scanner, but unless you're close to an airport ,you never hear the other side. They're at **<http://www.broadcast.com/radio/new_makeram.asp?id=5172>**.

Chicago Approach frequency, transmitted from O'Hare Airport, Chicago, Illinois. This frequency is used for Instrument Flight Rules (IFR) arrivals and departures for the west suburban satellite airports of O'Hare. It's online at **<http://www.cyberair.com/audio/chiapp/index.html>**.

In addition to live broadcasts, the ability to hear archived audio transcripts makes this technology even more exciting and useful. Listen to a recording of a disoriented pilot flying into an unfamiliar airport, and the confusion he creates in the process at **<http://www.cyberair.com/tower/trans/index.html>.**

We've run out of space again, so for a final pointer, check out the About.Com Internet Radio page. You'll find lots of good links and listings for consideration at **<http://internetradio.about.com/>.**

Be sure to visit the *Pop' Comm* Website at **<http://www.popular-communications.com/>** for the latest and don't forget to E-mail me those suggestions for Websites you think should be shown here. Until next time, 73. ■

the pirate's den

Focus On Free Radio Broadcasting

Clint Eastwood As "The Beaver?"

Let's see what we've got in this month's crop of pirate loggings. Don't forget — we need your loggings too, so send 'em along!

Radio Tornado Worldwide, 6955 USB at 2333 with Dr. "MF" telling of this new broadcast and newspapers being notified and that he'll be back a little later. (Bill Finn, PA)

Blind Faith Radio, 6955 USB at 2120 with a Woodstock show. (Finn, PA) 2130 with Dr. Napalm as DJ Beach Boys, spoof of Jack-In-The-Box ad. Ad for Leave it to Beaver, with Clint Eastwood as the Beaver. QSL via Merlin or <blindfaithradio@yahoo.com>. (Hassig, IL) 2120 with music and IDs. (Silvi, OH) 0532. Also at 1623 with address of P.O. Box 293, Merlin, Ontario, 1W0 N0P. Song "I Fought the Law and the Law Won." (Tim Taylor, PA)

WHYP via CERW, 9655 USB at 2155. Opened and closed with CERW ID. Host was Ravi Brownyard who had clips of Sal Amoniac, Radio Bingo, James Brownyard, weather for Indian cities. Also at 0400, just catching ID. Also at 2236, with mentions of JA of NY, some type of Yayayayay loop, said it was Ravi Brownyard, James cousin from India. Gave E-mail as <whyp1530@yahoo.com> for reports. Weather for Hyderabad, Bangalore, others. Another time at 0004 with country music, JA mentioned, Ravi Brownyard, weather for the northern part of the country, "Dumm dee dumm dumm" and "I'm your new neighbor." (Finn, PA)

Radio Bingo, 6955.12 USB at 0340 with a bingo game. (William Hassig, IL)

Radio Beaver, 6954.9 USB (variable) at 0405 with bagpipes, nasty talk about the premier of Ontario, talk about Northern Ontario separatism. QSL via the Merlin drop. (Hassig, IL)

XB37 (?) 6955.5 USB at 0002 with material that sounded like an old government film soundtrack. Conspiracy talks and bits from the Dr. Strangelove movie. Tinny audio. (Hassig, IL)

KIEM (tentative/unid) **6955.42 USB**. Show title sounded like "Travel Report Obscuria," with chopper sound effects, traffic report from hell, ending in crash. Spacy music. DJ was Alan Maxwell. QSL care of RBCN, Box 24, Lulu, GA 30554. (Hassig, IL) *(Maybe KIPM, below? — Ed)*

WACK Radio, 6955 USB at 0250 with part of talk about the White House. ID. (Silvi, OH) 0306 with ID, address, toll-free number of 1-888-959-8177. "Pagan Ritual Thoughts."

KRUZ, 6955 at 1456 with variety of music and many IDs. (Silvi, OH)

WKND, presumed, 6955 at 0008. Hard to hear at times due to QRN and then the Peruvian station but sounded like WKND and gave the Blue Ridge Summit drop. (Silvi, OH)

KIPM, 6955 at 1503 with mention of a fender-bender on the freeway. Also mention of "he got destroyed . . . pushed the Jeep . . . brand new Jeep." (Silvi, OH)

WIL, 6955 at 2046 with '50s music and commercials for Lubritrone, L&M, stereophonic equipment. (Silvi, OH)

WSRR, 6955 at 2142 with ID and Web page URL. (Silvi, OH) 1639. (Taylor, PA)

WMPR, 6955 USB at 0025 with "let's go get 'em, tiger," spelled "amoniac," weather. (Finn, PA)

WMFQ, 6955 USB at 0208 with ID. Also at 2334 with ID, Providence, RI, address, ID, song "Gotta Keep 'Em Separated." Off at 2339. (Taylor, PA)

CERW (Crazy Elmo's Relay World), 6955 USB with Beastie Boys. Off at 2323. (Taylor, PA)

Radio Three, 6955 USB at 0003 with Sesame Street theme, parody of Jackson's "Gotta Be Startin' Somethin'," Partridge Family theme, ID, and Partridge Family song, Boy George number, Bee Gees. Off at 0032 with "Send in the Clowns." (Taylor, PA)

Radio Fusion Radio, 6955 USB at 0132 with the "Macarena," ID, and P.O. Box 28413 Providence, Rhode Island 02908. "Macarena" was playing continuously throughout the program. ID at 0146 and abrupt sign-off at 0147. (Taylor, PA)

Scream of the Butterfly, 6955 USB at 0203 with Johnny Rockin' mentioning he was broadcasting from somewhere in the North Atlantic. Beatles tune, more IDs, "Gloria," song by Web Wilder. Providence, Rhode Island, address. Off with National Anthem at 0252. (Taylor, PA)

Voice of Anarchy — Leonard Longwire says he did a WWV parody on July 4 (UTC the 5th) inviting calls to 1-900-WWV for a free WWV tee-shirt. He aired another broadcast the next day and that, he says, was probably the last one, due to the word "anarchy" becoming too much of a liability. He says he may come back under a different name or call at a later date. (Taylor, PA)

That'll put it in a box for this time. Please keep the reports coming my way. I'm also looking for QSL address info and any other pirate news you come across.

Thanks. See you next month. ■

WREC QSL from last year.

BY EDWARD TEACH

antennas & things

Simple Antennas And Accessories For Signal Improvement

What Wideband Dipoles Can Do For You!

The standard dipole is a "standard" because it is so easy to use. The antenna itself is coax-fed, and is resonant on a frequency given by integer multiples of quarter-wavelength. But, there is a problem when using the standard resonant dipole: *it's resonant*. The resonance is both a benefit *and* a difficulty. The resonance is useful because it produces a higher signal voltage at the antenna's output terminals than non-resonant antennas. It's a problem because it produces voltages at the output equal to a random length wire at frequencies *other* than resonance.

What to do? There are three approaches to broad banding a dipole: a) make the bow tie antenna, b) make a folded dipole, and c) make a wider bandwidth folded dipole. Let's take a closer look at these three approaches.

Bow Tie Antenna

Figure 1 shows the bow tie antenna. This antenna is unique in that both wires are cut to the same frequency. A related antenna cuts the wires to different frequencies that are adjacent. The disadvantage of this antenna is that the impedance is lower by up to half — definitely a downer. The bow tie antenna, on the other hand, has elements cut to the same frequency (which means their length is the same).

Wideband operation is achieved by spreading the ends of the antenna, rather than by using adjacent (overlapping) segments. The overall length of the antenna is:

$$L_{Feet} = \frac{415}{F_{MHz}}$$

Where:

L_{FEET} is the length in feet (overall, not per wire),

F_{MHz} is the frequency in megahertz.

415 is a constant related to the speed of light.

The overall length (L_{FEET}) is somewhat shorter than the standard dipole by

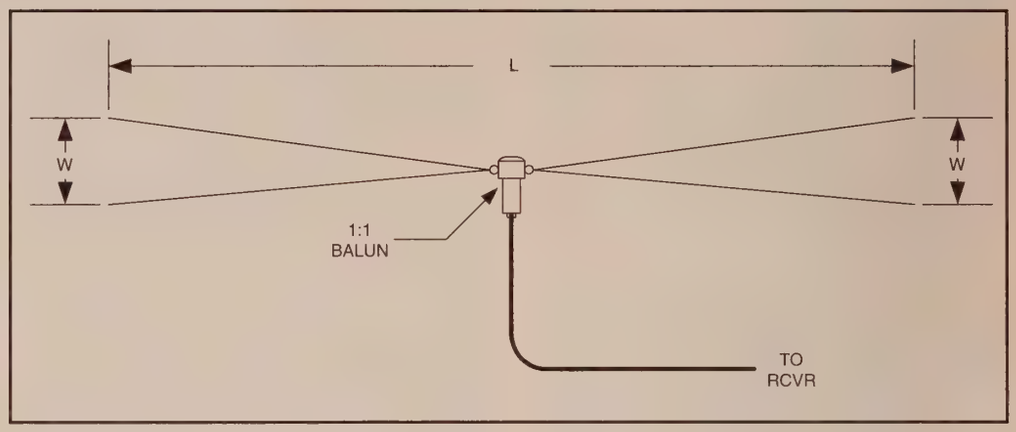

Figure 1. Bow tie antenna.

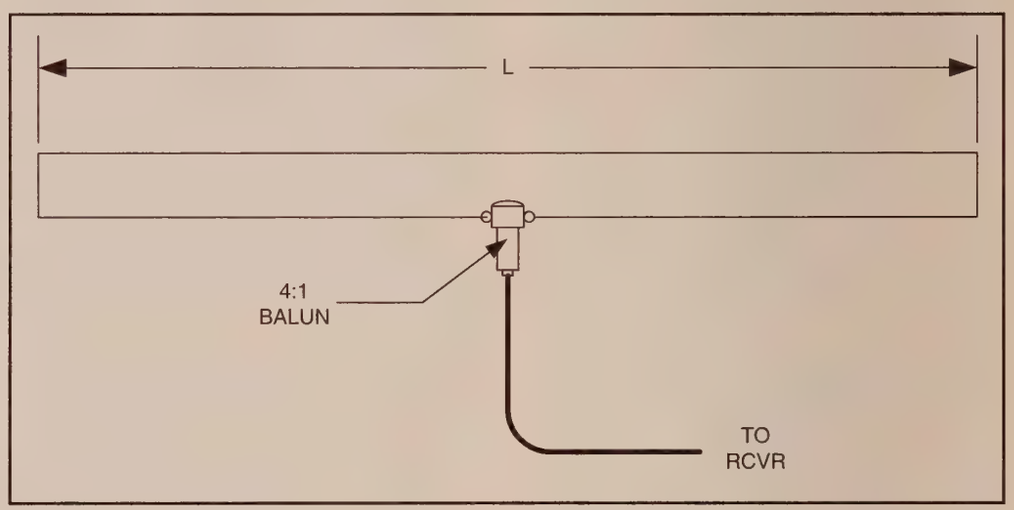

Figure 2. Folded dipole antenna.

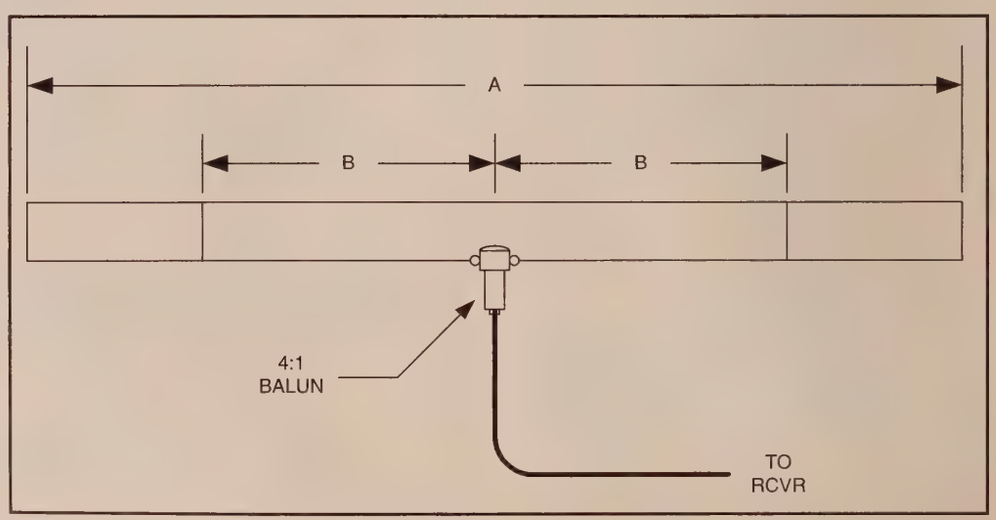

Figure 3. Wider bandwidth folded dipole antenna.

BY JOE CARR, K4IPV <carrjj@aol.com>

415/468 = 0.87. The foreshortening is due to the spread of the wires.

The spread of the wires is approximately 0.11L, or

$$W_{FEET} = \frac{45.6}{F_{MHZ}}$$

Where:

W_{FEET} is the spread in feet.

F_{MHz} is the frequency in megahertz.

45.6 is a factor related to the speed of light.

The bandwidth of the antenna is controlled by spreading the wires because of the fact that the impedance excursions are smoothed out. Normally, there would be wide excursions of impedance, but with the spread of the wires, the excursions are controlled, resulting in wider bandwidth.

A 1:1 BALUN transformer is optional, but highly recommended. The same factors that affect regular dipoles affect this one. As a result, the antenna works better if a BALUN is provided. Ordinary 75-ohm coax is used to carry the signal to the receiver.

Folded Dipole

A folded dipole is shown in **Figure 2**. This antenna is also a controlled impedance antenna, but does so by folding the radiator back on itself. The "folded" nature of the antenna is seen in Fig. 2 by the fact that the antenna is a squished loop. It is usually made of 300 ohm twin-lead transmission line (but by no means is that required, it's just habitual).

What is required, however, is providing a 300-ohm feedpoint. There are two ways to feed the receiver. One is to use 300-ohm twin-lead to the receiver, with all of the attendant problems that entails. Or, you can do the 4:1 BALUN trick to reduce the 300-ohms to 75-ohms. The use of the BALUN transformer also allows the folded dipole to be operated in the manner of the regular dipole.

The length of the antenna is the standard for all dipoles:

$$L_{FEET} = \frac{468}{F_{MHZ}}$$

Where:

L_{FEET} is the length in feet.

F_{MHZ} is the frequency in megahertz.

The folded dipole gets about 15 percent more bandwidth than the standard dipole.

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RADIO HOLSTER P/N $19.95
Quick Draw Holster has a high-security belt clip that hooks around the belt so it won't slip off. Holds radio in antennae-down position— won't catch on sleeves or poke you in the ribs. Easy access, rugged closure.
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A Wider Bandwidth Folded Dipole

Figure 3 shows a wider bandwidth folded dipole antenna. This antenna is made from 300-ohm twin-lead (like the regular folded dipole). Like all folded dipoles, the parallel conductors are shorted at the ends (the antenna is a squished square), and one conductor is broken at its center to accommodate either 300-ohm twin-lead or 75-ohm coaxial cable (with a 4:1 BALUN).

In the antenna of Fig. 3, however, there is a difference from the normal folded dipole format: shorts are placed between the two conductors at very critical distances (B) from the feedpoint.

The overall length of the wider bandwidth folded dipole is very close to the regular folded dipole:

$$A_{FFET} = \frac{465}{F_{MHZ}}$$

Where:

A_{FEET} is length "A" in Fig. 2.

F_{MHZ} is the frequency in megahertz.

The distance from the feedpoint to the short (B) is found from:

$$B_{FEET} = \frac{100}{F_{MHZ}}$$

Where:

B_{FEET} is the length to the short.

F_{MHZ} is the frequency in megahertz.

The coaxial cable to the receiver is ordinary 75-ohm coax. The 4:1 BALUN transforms the 300-ohm feedpoint impedance down to approximately 75-ohms allowing us to use the coax.

These three antennas are wider bandwidth forms of the dipole antenna. The bow tie, the folded dipole, and the wider bandwidth folded dipole are different approaches to controlling the impedance excursions that afflict regular dipoles. The standard dipole is fine on its resonant frequency, and for about 50 kHz on either side, but at frequencies further from the center, they fall down. It is the nature of these three antennas to have *wider bandwidth,* so use them in good health. ■

the radio connection

A Look Behind The Dials

Wanted: Contest Entries And Photos!

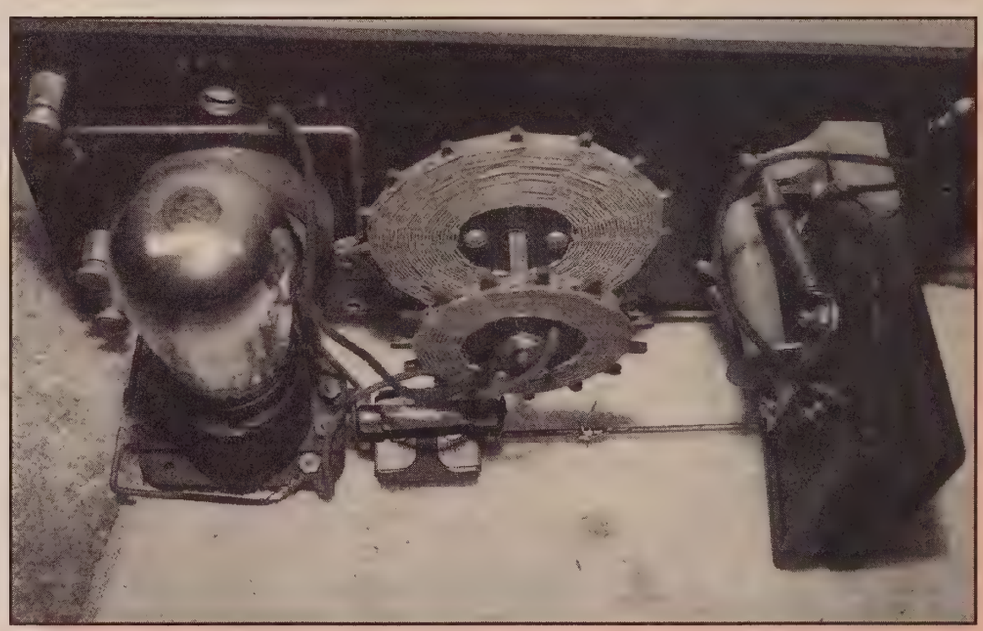
This will be the last column dealing with the construction and operation of the "Boy's First Receiver." Time to move onto new ground next month. I will answer any questions that come along, and am also anxiously scanning the mail bag for contest entries. Please send your photos and a few paragraphs about your experiences building the "Boy's First Receiver" to me at *Popular Communications*, 25 Newbridge Road, Hicksville, NY 11801. Plainly mark on the envelope "Attention: Peter Bertini, *Pop'Comm* Contest Entry" to ensure its rapid dispatch to the Radio Connection World Headquarters! I've received a few letters from folks that have completed the receiver and are having loads of fun with it, but the promised photos have not yet arrived.

The front view of the ACE V receiver. The large tuning knob is at left. Knob at top center controls the regeneration level. The tap switch selects different wavelengths. Knob at far right is the filament rheostat. Note the little peephole for observing the tube's filament. This radio is in good condition; heavy wear on the nickel dial plates is visible, and notice the notches cut in the top cover to permit using the radio while the cover is closed! Nonetheless, I can still imagine the countless hours of enjoyment this simple set gave its owner.

A Simple AC Power Supply For The Boy's First Receiver

I have to be honest, given the modest battery requirements of the one and two tube sets — an AC supply seems like an unwarranted accessory. Several of you have asked for an AC supply, and I am still looking for an inexpensive solution. I could use RadioShack transformers, but those alone would cost nearly $20; far too much outlay for what is needed. I will publish the plans when a practical supply design is achieved. I am actively searching through various surplus houses for the best deals on parts.

Reuel Bennett was kind enough to write: "I've followed 'The Radio Connection' columns for some time and have enjoyed them. They are a connection for me with the past. In 1932, I built my first receiver. At that time, our home was supplied with DC power that could run from about 90 to 105 volts, depending on the time of day. I used converted fruit jars to build my battery 'A' supply, and the house DC for the 'B' power. Later, when the power was converted to AC, I used any old tube that would no longer amplify, but that could be used as a rectifier to run my home-built battery charger. In those days, you could buy a kit that included the battery electrodes



It doesn't get any simpler than this! The inside view of the ACE V shows how all the components mount to the front panel. At far right is the Crosley book capacitor. The large coil in the center is the antenna coil, while the smaller coil is the tickler. The grid leak resistor and capacitor can be seen at the bottom. Set is being demonstrated with a globe 01A, although it could be used with a WD12, as well. This set is almost in excellent condition, although some cleaning and polishing are needed.

BY PETER J. BERTINI <RadioConnection@juno.com>

Scan Our Web Site

The Westinghouse Aeriola Sr. one-tube regenerative receiver. The top of the WD11 tube is just visible sitting in its recessed socket. At left, the top control sets the regen level, while beneath it is the rheostat. The large center dial is for tuning.

from a mail-order house in Chicago.

Sometimes, it took a long time to recharge my rather large bank of fruit jar batteries. I still have a three-tube Radiola and a three-tube Westinghouse from before WW2. Everything back then was in meters (*Editor: Instead of Mc or Kc, the radio dials showed the wavelength in meters).* — Reuel."

Regenerative Receiver And Unwanted Radiation

As the regen control is set closer to the oscillation point, the set will begin to radiate a signal on the receive frequency. You may find, especially when using a long outside antenna, that you are producing heterodynes on nearby receivers tuned to the same frequency. I've heard stories where hams had "confirmed" hearing a regenerative receiver's incidental radiation over distances of hundreds of miles! This was a real problem during the early days of ham radio, since the receivers were normally set past regeneration into the oscillation region, allowing the reception of CW signals — the radio acted as its own BFO.

Troubleshooting The "Boy's First Receiver"

Some readers reported some small problems they've been having with the receiver. Here are some tips for folks who are having difficulties.

A common problem is not being able to get the set to go into regeneration. Make sure the regen control is wired so that it's at maximum resistance at the fully clockwise rotation. Check that the coils are wound properly. If either the tickler or antenna windings are reversed, the feedback will be negative instead of positive. Instead of the set going into oscillation as the regen control is advanced, just the opposite would happen; the gain of the set would decrease instead of increase.

One fellow reported that the tuning would shift whenever he placed his hand near the tuning dial. This was caused by having the rotor and stator connections reversed. Be careful here, as the metal body of the capacitor (rotor plates) should be at ground potential, otherwise the tuning shaft is "hot" and body capacity will change tuning.

The set works best with medium mu triodes, those are the 1H4, 1G4, or type '30 tubes. The low mu '99 tubes will generally work on the broadcast band, but may lack the gain to support oscillation on the higher frequencies. If you are having trouble with some of the shortwave coils, try increasing the number of turns on the tickler winding until the problem is solved, or reduce the gap between the windings for increased coupling. You shouldn't need to add more than an additional or full turn on the tickler winding. If you must, try a higher value pot for the regen control — perhaps 10 or 20 K-ohms. I could build several copies of this receiver, and each would behave slightly differently.

The "B" battery voltage isn't cast in stone. On the broadcast band, 18 to 27 volts seems to be about optimum, going higher seems to lessen the sensitivity. Indeed, most of the time I use two 9-volt batteries (18 volts) for the "B" supply for both the detector and audio stage when tuning the BCB; and the set's performance is excellent. Finding that elusive ideal regen point seems easier with lower "B" voltages as well. Yet, on the shortwave bands, slightly higher "B" voltages may be needed to support regeneration. Also, the regeneration point may be less obvious on the SW bands; and it is normal to find "dead" spots across the tuning range where regeneration becomes rather touchy or non-existent. Keep the antenna coupling at the lowest capacitance setting that works best!

I've noticed a lot of early battery set parts being offered on the eBay auction Website. Parts such as vernier dials, tube

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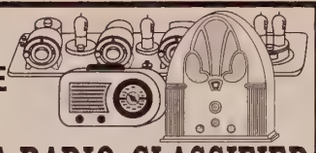

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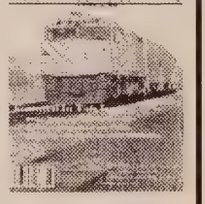

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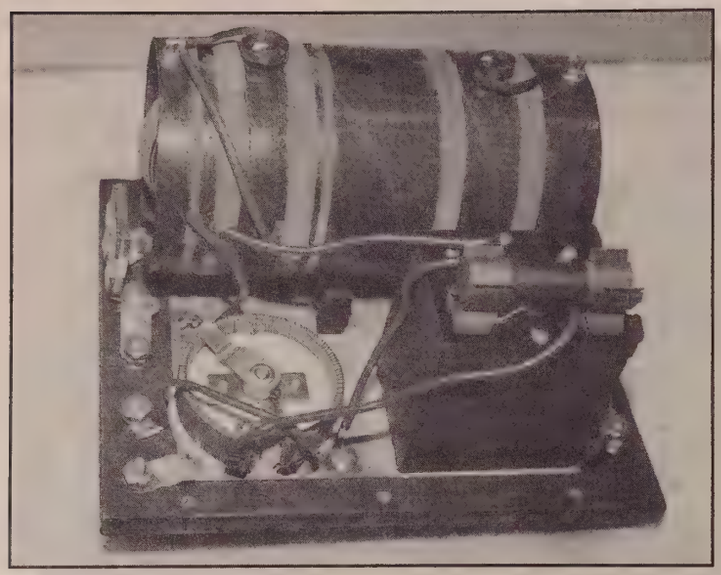
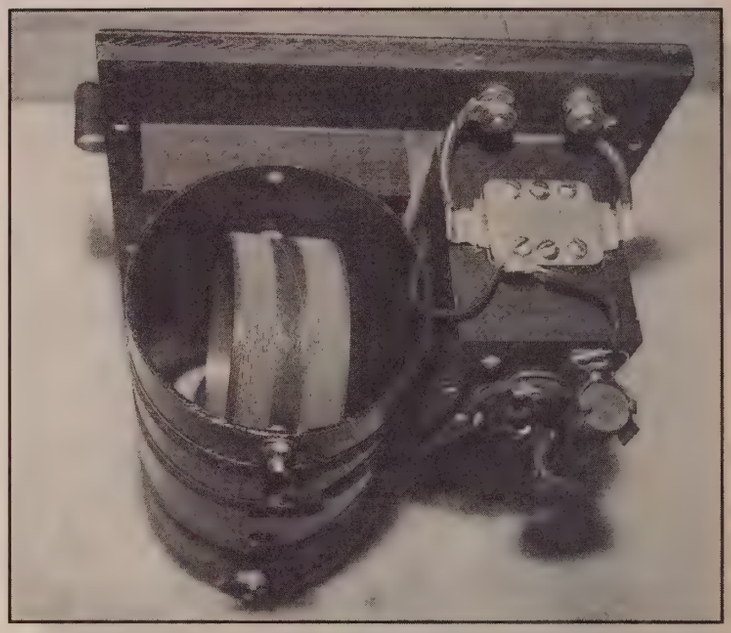


This inside view shows the large antenna coil at the top, and the filament rheostat at bottom left. The large black object is the tube well-and-socket assembly. The cylinder-like object that resembles a 30-amp fuse is a cartridge version of a combined grid leak resistor and capacitor.



This edge view of the antenna coil shows the variometer coil used for tuning. At the opposite end is a similar coil used as a variocoupler for setting the regen level.

sockets, coil forms, and capacitors have appeared in the past few weeks. Do a search for "vintage radio parts," "radio coils," or similarly phrased keywords to locate these items. eBay is found on the Web at <http://www.ebay.com>.

Controlling Regeneration

Using a pot across the tickler coil winding was a popular method of controlling regeneration in the 1930s and 1940s. Despite being effective, it's a rather brute-force approach in my opinion. Earlier regenerative receivers controlled regeneration by varying the degree of coupling between the tickler and antenna coil, which was a far more elegant approach. There were a few popular mechanical methods for doing so. One way was to mount the tickler coil on a movable arm connected to a front panel knob. Adjusting the knob the distance between the two coils adjusts the regenerative action. Some sets had the tickler coil wound on a small coil form and mounted inside of the antenna coil form. Regeneration was controlled by rotating a shaft that turned the tickler coil to control the degree of coupling between the two coils. These rotating coils within a coil are called "variocouplers." A variometer was a similar looking device, but it had the two coils in series. Rotating the coil caused the mutual inductance to add or subtract in value yielding a wide tuning range. Variometers were commonly used as tuning controls in lieu of variable capacitors in very early crystal and tube sets. Later, when tetrodes became available, regeneration was controlled by using a potentiometer to vary the screen voltage.

Another method of controlling regeneration used a variable capacitor instead of a potentiometer. The "throttling" capacitor was used on the RF "cold" side of the tickler winding (the B terminal), and adjusting it varied the reactance of the coil's RF return reference. As the capacitance was decreased, the tickler circuit became more "loose," and regenerative action was reduced accordingly. I mention these methods for historical reference, and for those interested in pursuing some further experimentation with regenerative receiver designs.

The regenerative set remained a popular project for builders well into the late 1940s; for simplicity, economy, and ease of construction, nothing has ever duplicated the performance of Major Armstrong's humble regenerative design. Crosley was perhaps the most prolific builder of inexpensive regenerative receivers for the burgeoning radio market. Costs were tightly controlled by housing the sets in plain and inexpensive cabinets. The lowest-cost Crosleys used one and two designs that closely resemble our one and two tube project radios. The larger three-tube Tridyn models could drive a speaker. But the handwriting was on the wall. Battery-operated superheterodyne sets were in use in the mid 1920s (under tightly controlled RCA patents), and the popular three-dialer TRF sets of the 1920s surpassed the performance of the regenerative sets. By the late 1920s, regenerative designs were no longer in commercial production, although they held some continuing popularity with many amateur radio operators because of the inherent CW detection they offered.

The ACE 3B receiver. The detector stage is identical to the one used in the ACE V. Two additional stages provide audio amplification for better DX performance

A Gallery Of Early Regenerative Receivers

I have several early regenerative receivers in my collection. The simplest are one-tube sets, very similar in design to the "Boy's First Receiver." The photo shows my ACE V, first introduced back in 1923! Crosley bought The Precision Equipment Corporation in 1922, and continued using the ACE trademark until 1924. In 1924, the ACE V was reintroduced as the Crosley model 50. A companion one-tube audio amplifier, the Crosley 50A, was offered in 1925.

The ACE V is an extremely simple set. The original tube was probably a WD12; in the photos a UX201A is shown. Note the simple hookup — all power, antenna and earphone leads can be done via the front-panel posts. Thumbnuts on the rear of the posts (inside the receiver) also gave the owner the option of hiding the battery wiring by bringing them out through a rear cabinet mouse hole.

Tuning was done via the ingenious Crosley "book" capacitor. Two movable plates opened and closed, like the covers of a book, to form a simple variable capacitor mechanism. The movable "page," or rotor plate, was activated by a cam mechanism attached to the tuning shaft. These early capacitors gave a limited capacitance range, and to achieve wider coverage a tapped antenna coil is used. Note the exposed tap switch on the front-panel. The earlier versions of the Crosley book capacitor used wood blocks, which were later replaced by a hard resin-cast material. The set works surprising well, although its tuning range will not cover the entire present U.S. broadcast band. With a simple 20-foot wire antenna, it pulls in local stations with surprising volume! The regeneration is controlled by a movable tickler coil. A knob on the front panel allows the user to move the tickler coil closer or further from the antenna coil to control the regeneration level. This method works quite well, and regeneration is easily controlled to the point of best sensitivity.

Despite their age, the Crosley 50 and ACE V are not particularly rare; either set in good condition is worth $125 to $150. The matching Crosley 50A audio amplifier is rare, and is worth more than the receiver. Many collectors shun early battery sets because they are not particularly attractive and some feel rigging up a power source to replace the batteries is a bother.

Next is the famous Westinghouse Aeriola Senior table radio first introduced in 1922. These radios were made in East Springfield, Massachusetts, by the Westinghouse Electric Corporation. While the factory buildings have long been vacated, the WBZA transmitter towers remain in place 'til this day. These little sets are abundant, but finding one in pristine condition is difficult. Most Aeriola Sr.'s, like mine, show considerable wear on the nickel-plated dials from years of heavy use. My top cover was notched by a previous owner to allow the antenna, power, and headphone leads to enter while the lid is closed. Again, this detracts from the value of the radio. In many sets, the original operating instructions (inside of the top cover lid) are either missing or torn; or may have been replaced with a photo-copied color replica. These sets run from $100 to $250 at meets. The price is determined by condition and the rarity of the radio in that geographical area. The set uses a now rare and expensive WD11 tube. A good working WD11 can add $40 to $65 to the value of this radio. The WD11 has a very fragile filament; one old-timer related how he opened a fila-

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27.165	1.50	41
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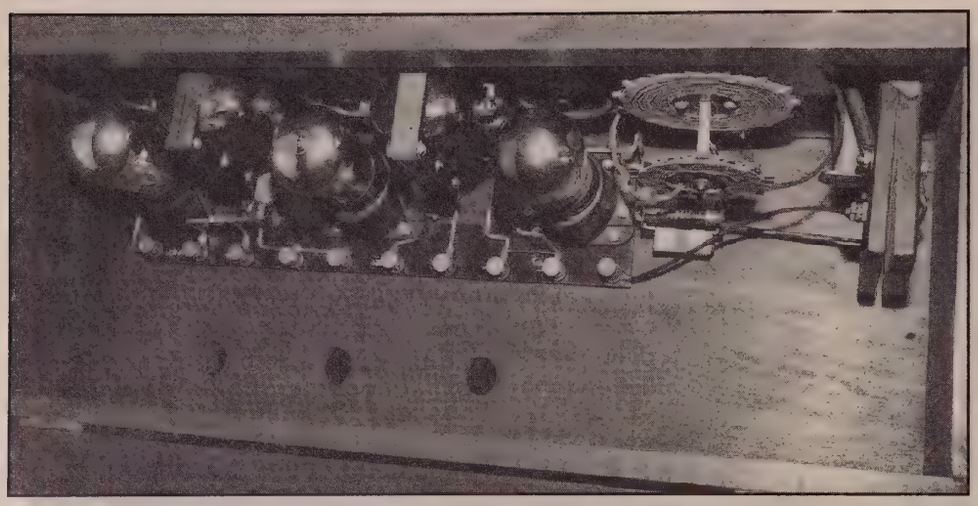

Interior view of the ACE 3B. Note the two transformer coupled audio stages following the detector. Globe 01As are shown being used in this set. This pristine set is almost museum quality, although the photos don't show them, the original warranty tags are present.

ment by dropping a WD11 from one hand into another! The front panel shows how the top of the exposed tube is visible sitting in its recessed well cutout. Peeking inside the set, we can see the rheostat to set filament voltage, and the large antenna coil assembly. This set uses a variometer to set regeneration, and a variocoupler to adjust the tuning. These coils are mounted inside of the larger antenna coil and rotated by the front-panel controls to adjust the tuning and regeneration.

Last is a look at the 1924 ACE 3B receiver. This is a three-tube set, and features a regenerative detector and two transformer-coupled audio stages. The detector portion of this receiver is identical to the ACE V. The original ACE 3 design was expanded upon by adding two additional audio stages. Each tube has its own rheostat; and peepholes in the front-panel allow the user see the glow of the tube filaments! The ACE 3B is somewhat rare and one in good condition fetches between $175 and $225. Again, condition and the local market sets the price. Another very popular Crosley set was the two-tube model 52, featured in a very early "Radio Connection" column. Crosley made many sets that were plain and priced to compete by using unadorned wood cases and no decorative frills.

In a later issue, I will show some other Crosleys from my collection, including a Crosley Trirdyn, a model VI, and a model XJ battery set. Restoring early battery sets involves some special skills because everything is exposed with no hidden parts. I have a few early three-dialer TRF sets needing restoration that will be featured in future columns.

Next month is our December column, and keeping with the season, we have a very special Christmas tale to share with you. I will also be starting the restoration saga of an American Bosch tombstone. I am also working on some new construction projects, so stay tuned! ■

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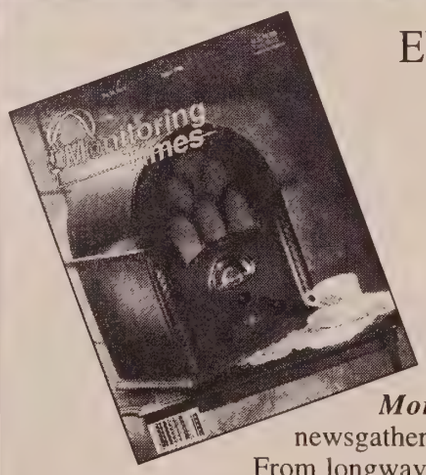

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radio resources

Interesting Thoughts And Ideas For Enjoying The Hobby

Real Calls With The Red Cross: Getting Ready For The Big Callout!

As an emergency radio communicator, I think we can *all* say we are DRILLED OUT! All of us have put in countless hours helping with parade communications, rest stop comms, public service bike-a-thons, fundraiser rally support communications, and of course, our monthly meetings, where we all show off our radio equipment and attest to being ready for THE BIG EMERGENCY CALLOUT.

For a few radio operators throughout the United States, this training pays off with *real* emergency communications at tornado scenes, hurricane areas, railroad derailments, and widespread flooding. But for the rest of us served by extraordinary public safety radio systems in place, chances are we may only see some real action once every 10 or 15 years. But we will continue to do parades, public service events, and walk-a-thons — all the while telling ourselves this is really good preparation for THE BIG ONE.

"As a radio communicator for the American Red Cross, your main responsibility is radio — and nothing else."

But nothing beats the lessons learned and the on-the-job training associated with real emergency callouts. You know — that unexpected callout that you had absolutely no warning of, when you grab the radios and respond to the scene. Whether you are providing 27 MHz CB emergency REACT communications, or GMRS emergency channel comms, or handling traffic over FRS channels, or ham and marine communications, the REAL THING helps us prepare our skills and the radio equipment we bring.

Q. Who gets major real-life callouts?
A. City radio volunteers
B. County RACES operators
C. The American Red Cross
D. Members of amateur radio emergency service
E. REACT units

This was an easy question. Just look at news coverage of a disaster, and chances are you will always see the American Red Cross in action, with invaluable support from Salvation Army emergency responders and, during widespread emergencies, the national Disaster Medical Action Teams (DMAT). But the Red Cross is usually first to arrive, and last to leave the disaster area.

Q. The Red Cross has its own radio frequencies.
A. Yes
B. No

A. The American Red Cross has many radio frequencies, including the national 47.42 MHz and regional UHF business band channels assigned for local chapter use. But during almost any type of large event, these channels quickly become clogged, and the American Red Cross will rely on their credentialed radio communicators to come up with alternate frequencies. This could be 27 MHz citizens band, GMRS simplex and repeater channels, 49 MHz and FRS low power channels, and amateur radio frequencies in high frequency, as well as short-range VHF and UHF.

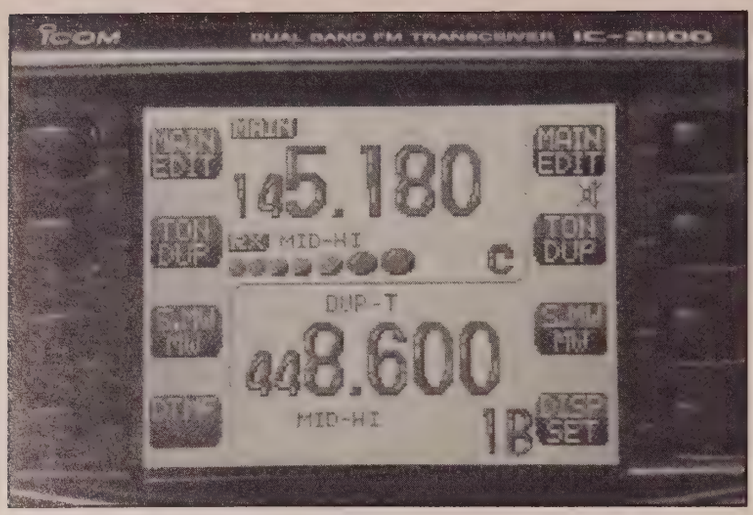
Even the Iridium sat phones may become overloaded in an emergency.

The American Red Cross 47.42 MHz channel may quickly fill up with staff management communications and intra-chapter calls. The local chapter Red Cross business band frequencies are quickly consumed by damage assessment teams radioing back their windshield surveys. The mass care divisions will also be using the limited number of Red Cross business channels for shelter set-up calls. And while many Red Cross volunteers and staff members may have cellular phones, a widespread disaster will usually overflow the cellular circuits, and it may take hours to get cell phone calls through. And if the disaster is a tornado or hurricane, or even flooding, there is no guarantee there will be any cell sites still left up and running.

Where We Fit In

The American Red Cross, established in 1881 by Clara Barton, provides relief to victims of disasters and helps people prevent, prepare for, and respond to emergencies. There is to be no discrimination as to race, nationality, religious beliefs, class, or public opinion. The Red Cross may not take sides. The Red Cross is independent of societies and governments in order to maintain neutrality. This means the Red Cross is not a government agency, nor is it funded by government monies. And for every paid Red Cross staff person, there are approximately 50 volunteers at work within the community.

BY GORDON WEST, WB6NOA



Preparing for cross-band repeat at a Red Cross shelter.

Not all Red Cross radio systems require a ham license to operate. They may also use business band radios.

Q. What type of radio license must you have to become a radio communications volunteer?

A. Commercial general radiotelephone license

B. Restricted operators permit

C. Technician class, or higher, amateur radio license

D. No licensing prerequisite

A. You do not necessarily need to hold a specific two-way radio license to become an American Red Cross communications volunteer. Radio volunteers with absolutely zero licensing may be trained to operate the chapter business band radio system. You could be assigned a field position, where citizens band radio is the primary resource for block-by-block surveys. Or you might be assigned a GMRS repeater radio, and although the repeater system must be FCC licensed, the individuals using the equipment through the repeater do not need to possess their own personal radio operator permit.

For amateur radio communications, the radio operator must possess the Technician class license, or higher, for the popular 2-meter band and 440-MHz band, and the General class license for Red Cross communications on the 20- and 40-meter bands. What all this means is the local chapter's communications team may be composed of unlicensed, as well as licensed radio operators, and the equipment they will use will be assigned to them by what licenses they may hold.

Becoming A Red Cross Volunteer

There are numerous volunteer positions at your local American Red Cross chapter that will satisfy your present skills. Each volunteer position requires about 10 hours of classes before you are issued an official Red Cross ID card. These classes are usually available in the evening hours, or over a weekend, and you can usually pick up the necessary class elements within just a couple of weeks of "reporting for duty."

Volunteers will first start with a volunteer orientation class, followed by a three-hour "Introduction to Disaster Services" course. This course gives you a brief overview of the different ways you can participate within the American Red Cross Disaster Services.

The next class you will need to take might be "Damage Assessment," "Mass Care — An Overview," or "Emergency Assistance to Families." These may be recommended, but not necessarily required courses for initial activation in the disaster communication function. I enjoyed the "Damage Assessment" class because it gave me a good overview on how radio communicators may work with damage assessment teams in the field. "Mass Care" is also an excellent three-hour class to take because it prepares you for all of the communications that might take place in an evacuation facility.

Your final class will be an introduction to the radio communications system that your particular Red Cross facility employs. You will learn about their operational repeater channels, practice operating at the chapter's EOC radio station, and demonstrate what licenses you hold and be assigned to your chapter's local radio communications team. Best of all, you will be issued your American Red Cross official ID card. Not only will this get you into the action scene, but give you back-up insurance when you have filled out the proper paperwork (1492-A) for that Red Cross response. You will then pick up your uniform and patches, and then be set for monthly training and the callout.

The callout will probably come sooner than you think — maybe they need a radio communicator to relay a supplies list from an evacuation center back to Red Cross chapter. This might be on ham radio, or it could be on Red Cross repeater frequencies. If you're not a ham, it might be over GMRS channels, too. And if it's a widespread disaster with a spread-out Emergency Operations Center (EOC), one of your jobs might be relaying information over FRS or 49-MHz license-free radio channels.

You will never give a client's name over a radio circuit! Same thing with amateur television; you will not use it in an evacuation center to show faces of the clients inside. They're called "clients" rather than victims — the mission is to support clients and help them get back to a normal environment despite their devasting losses.

Sometimes, the evacuation centers may be a steel-reinforced gymnasium and you'll have poor radio range to a distant repeater. As a ham operator, you might want to put your mobile dual-band radio into cross-band repeat, and use it as a mobile local repeater to get a signal out to that distant repeater. Keep in mind that ham communications require a licensed ham radio operator — even though this is an emergency situation, generally non-licensed hams are not allowed to speak over the microphone.

As a Red Cross emergency communicator, you may only have a few minutes notice to grab your equipment and respond to the scene. This means plenty of charged batteries or alkalines, handheld headsets for speaking and hearing over loud noises, and an

Gordon is Red Cross-ready-to-respond with his communications van. (Photo by Ron Eggers)

This Red Cross radio team serves the Orange County, Los Angeles, Red Cross Chapter. (Photo by Ron Eggers)

earphone for receiving radio calls inside the evacuation center when your clients are nearby and have finally dropped off to sleep. An external antenna is helpful, and during major emergencies, setting up a high-frequency station in order to keep in touch with distant Red Cross chapters on 80 meters, 40 meters, or 20 meters ham is vital.

As a radio communicator for the American Red Cross, your main responsibility is radio — and nothing else. All questions directed to you by the media will be referred to the shelter manager or a public information officer. You don't say ANYTHING to the press. If a disaster worker asks you your opinion on a certain situation, you are only in charge of radio, and suggest they speak with the shelter manager. Your job is radio, and your mission is providing those radio communications necessary for the smooth running of a particular scene.

Much of your communications will be the ordering of supplies, messages from and to disaster assessment personnel, and messages from fellow Red Cross workers regarding duty hours, shift changes, availability of nursing, and a host of other important traffic.

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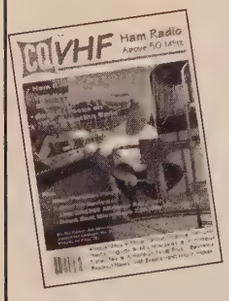

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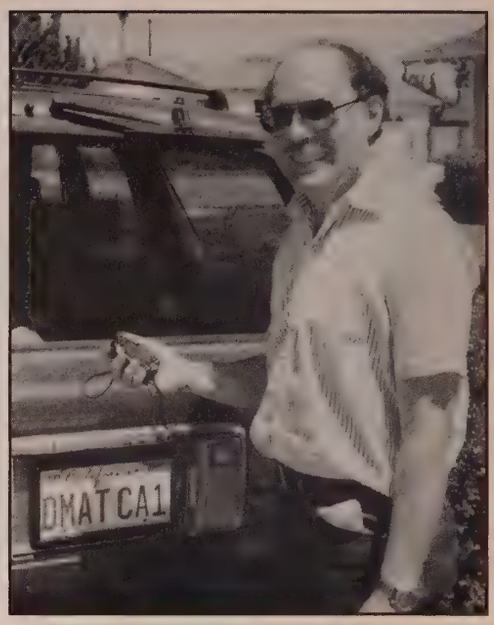
CIRCLE 67 ON READER SERVICE CARD

You will use plenty of your skills in working with people. Many shelter managers are strong-willed individuals; and as long as they know you are not trying to second guess them, your comms will go smoothly. (In other words, don't get involved in anything other than your radio communications!)

Where Do You Start?

You sign up for your American Red Cross disaster service training and credentialing by calling up your local American Red Cross chapter. Every area of the country has an American Red Cross chapter, and it is through this chapter that you will volunteer your radio skills. Your first class will be the volunteer orientation, and then introduction to disaster services. If you are an EMT, or an architect, or a professional driver, you may find other opportunities within that chapter that you may wish to cross-train for, along with your radio capabilities. But chances are radio operators will be in short supply, and you will be a welcome addition to your local chapter.



Disaster Medical Team Leader Mike Bannon, N6LJO, also works with the Red Cross communicators.

No radio license? You don't need one! And who knows, maybe they'll offer amateur radio licensing classes right there at the same facility at a later date. But you don't necessarily need to be an amateur radio operator to be an American Red Cross radio communicator.

If you're looking for real life callouts, you're going to get it — the Red Cross responds to almost anything that may put people out of whack when an unexpected emergency arises. And if you really get into this radio communications service with the American Red Cross, you can even graduate to a national response status where they might pay your way for several weeks to help out with flood communications at the other side of the country.

"No radio license? You don't need one!"

I am proud to be an American Red Cross volunteer radio operator. Our local city, county, and state have a superb radio communications system all of their own, so the chances of ever getting called up by the city, county, or state are next to nil. But for the Red Cross, the call-ups come almost weekly, and there is nothing that beats real life experience at a local emergency scene. ■

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the ham column

Getting Started As A Radio Amateur

First QSO Jitters—Who, Me?

Need a gulp of mint-flavored Mylanta? Cat got your tongue? Can't remember your name? You're probably about to make your first repeater contact! That shiny new 2-meter FM rig is freshly unpacked and you're dying — and terrified — to use it.

O.K. Let's start with the basics. Punch up the local repeater frequency and listen. Nothing. No QSOs in progress, no weather reports, no machine-spoken IDs can be heard. This is the moment you've been waiting for. It's D-day, and you're ready to hit the beach! You key the mic and, in a confident voice, announce, "This is NT0Z listening!"

The repeater works its magic. Somebody has to be reaching for a microphone, right? They'll respond any second now, won't they? The seconds stretch on. You repeat your call, perhaps sounding a bit less confident. Still nothing.

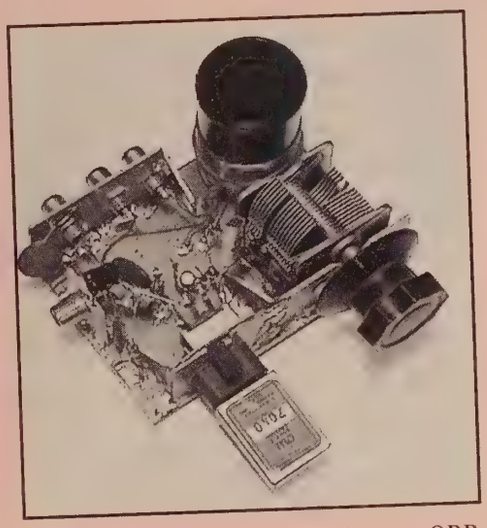
Just when you're about to give up and hit the big switch, the repeater suddenly comes to life!

"WD0BDA, this is WX0ABC. You around, Fred?"

Anger flares, replacing your former feelings of isolation. You realize that at least one of those guys was probably on

Something Old, Something New

Now that technology is screaming forward at a breakneck pace, it's often fun to get on the air with gear — and technologies — from different eras. When I was a kid, this meant mixing tube gear with solid-state gear. We can still do that today, of course, even going as far back as using tubes from the early part of the Century.



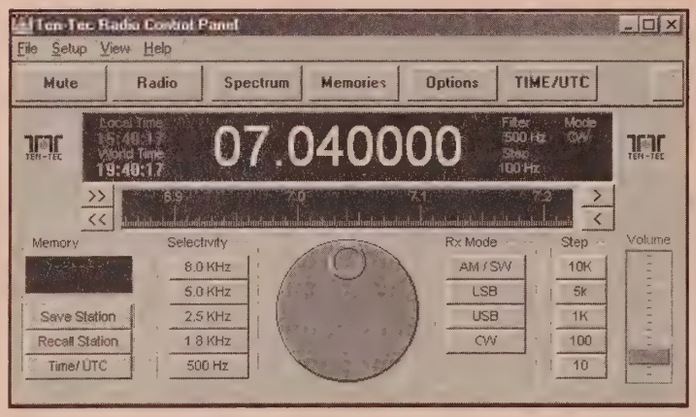
The author's home-brew 80/40 meter QRP transmitter.

My little experiment in technology juxtaposition paired a sophisticated "computer radio" with a home-brew one-transistor QRP transmitter. Having built the transmitter more than 10 years ago, I can't even remember where I found the schematic. It was from some ham radio magazine article or another. The little TX puts out about a quarter of a watt of 80 and 40 meters — nothing fancy!

Ten-Tec's nifty RX-320: Big radio performance in a tiny black box.

The receiver, on the other hand, was Ten-Tec's amazing RX-320 "PC Radio," a compact "black box" that attaches to your *Windows* (3.x, 95, 98, NT) computer via a serial cable. The RX-320 relies on advanced surface-mount components and DSP to work its radio magic. Your PC (laptop, desktop, whatever) handles frequency control, memories, system displays, etc.

The '320 covers everything from the domestic AM broadcast band through the 10-meter ham band on AM, SSB, and CW. And although it has been favorably reviewed in this magazine and elsewhere (including "*QST*," which is almost certainly the most torturous when it comes to product reviews),



When using the RX-320, your personal computer screen will look something like this.

I wondered whether the teeny receiver — which had none of the "manly" controls and beefy size I'd come to associate with high-performance ham gear — would really shine on the crowded amateur bands.

Well, after more than a dozen QSOs on 40 meters and plenty of side-by-side comparisons with three other ham transceivers, I can report that the RX-320 is a "real radio" for hams or SWLs. An engineer suggested that the design of the RX-320 is similar to that of Ten-Tec's new "PC Transceiver," which should be shipping by the time this column hits print. For more information, contact Ten-Tec at 800-833-7373 or visit their Website at <http://www.tentec.com>.

BY KIRK KLEINSCHMIDT, NTØZ

frequency and listening when you made *your* calls. Why didn't they answer you? Is it because you're a newbie? Do they hate you already? They don't even know you!

That, as you'll discover, is the nature of the problem.

Shy Hams?

Ham radio is all about communicating — with one great contradiction: Most hams are painfully shy! Want proof? Go to any hamfest and watch how clusters of ham buddies talk up a storm "with other hams they know." Outside their respective groups, most attendees walk around in relative silence. Some are even difficult to engage in conversation! When I'm working my hamfest table, I take secret pleasure in calling out the shy ones and making (encouraging, helping, forcing) them talk to me. Like a circus barker, I get in their faces and start some friendly chatter. Most speak up — but some actually turn around and run away! And these guys studied to pass difficult exams for a "communications" hobby?

A friend of mine thinks it has to do with the nature of amateur radio itself. I tend to agree. You see, when you're on the air talking up a storm to some other ham in Oregon, say, you're "invisible" (SSTV and ATV modes excepted). You don't have eye contact. You could be reclining in your boxer shorts or standing on your head — whatever. The world is at arm's length. Through ham radio, people who might be fearful of close, personal communications still get to communicate.

Breaking the shyness barrier is what's necessary to make those first repeater contacts. When you announced that you were listening, more than a dozen other ops probably heard you. They heard you, but they probably didn't "know" you. They were all waiting for someone else — and they knew there "were" others listening on frequency — to break the ice. If everyone waits, nobody responds!

This scenario is repeated (pun intended) on machines across the country many times a day. The problem isn't you, or that you're a new ham. It's that you're a stranger, an unknown quantity. Making the transition from stranger to friend will ensure many repeater QSOs.

Get The Ball Rolling

If you keep announcing that "you're listening," someone will eventually reply, but it might take a while. An easier approach is to become part of an existing repeater conversation.

Monitor the repeater and listen for opportunities to join in, even if you're just asking a question.

"WD0BDA from WV0XYZ. I'm definitely gonna order that Northwest Off-Road header for my Toyota. I think it's the best way to get the extra horsepower for pulling my camper."

"I don't know, Fred. I think you should start with a carburetor and a cam tweaked for towing power."

Here's your golden opportunity to jump in and make friends. If you don't know anything about building hot-rod 4X4s, just ask a question! If you do, pop in and contribute your two cents worth. In a pause between transmissions, announce your callsign.

"NT0Z"

"Whoa, there's a new voice! Ah, NT0Z. . . this is WD0BDA. How can I help you?"

"Hi, my name is Kirk and I live in Little Falls. I couldn't help overhearing your discussion and I wanted to suggest the Performance Products header over the Northwest Off-Road. It's a lot easier to install and it provides more horsepower for towing. And if you change the cams, you'll wind up replacing the rockers and the valve springs. It's a lot of extra work."

At this point, you're no longer a stranger, at least to these guys and those who are lurking on frequency. Make enough conversations of this type and you'll gradually wear down the opposition. In time, your callsign will be familiar to everyone who regularly uses the machine, and when you say, "NT0Z listening," you'll get replies. After all, these people now "know" you!

Suggestions

Another way to get to know repeater-dwelling hams is to attend ham club meetings. Make friends there and you've made friends on the repeater!

Through that local club, volunteer for various public service activities. Helping out at public service events is rewarding in ways beyond the accumulation of ham radio friends.

Try asking for a signal report instead of just announcing to the radio world that you're listening. When potential responders have a reason to reply, your chances of making contact improve.

Do something or go somewhere unusual. If you say, "This is NT0Z, overhead in the Goodyear blimp, listening," you're bound to get a reply.

Whatever you do, don't wait around for others to come to you. Get after them yourself—and don't take radio silence for an answer!

See you next month. Send your QSL cards, questions, and letters to *Popular Communications*, "The Ham Column," 25 Newbridge Rd., Hicksville, NY 11801. ■

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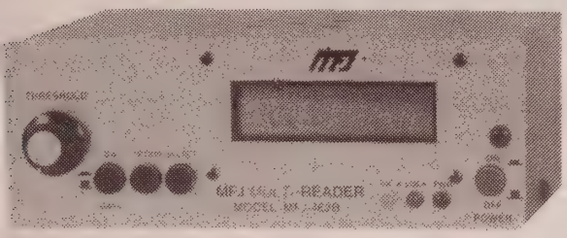

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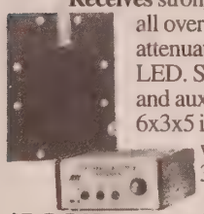

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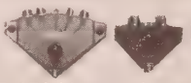

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Pop'Comm's World Band Tuning Tips

November 1999

This listing is designed to help you hear more shortwave broadcasting stations. The list includes a variety of stations, including international broadcasters beaming programs to North America, others to other parts of the world, as well as local and regional shortwave stations. Many of the transmissions listed here are not in English. Your ability to receive these stations will depend on the time of day, time of year, your geographic location, highly variable propagation conditions, and the receiving equipment used.

AA, FF, SS, GG, etc. are abbreviations for languages (Arabic, French, Spanish, German). Times given are in UTC, which is five hours ahead of EST, i.e. 0000 UTC equals 7 p.m. EST, 6 p.m. CST, 4 p.m. PST.

UTC	Freq.	Station/Country	Notes
0000	9560	Radio Ukraine Int'l	
0000	9745	HCJB, Ecuador	
0000	11615	Radio Prague, Czech Republic	
0000	11905	Radio Thailand	
0000	11910	Radio Oman	AA
0030	9855	Radio Vilnius, Lithuania, via Germany	
0100	5905	Radio Ukraine Int'l	
0100	7300	Radio Slovakia Int'l	
0100	9570	China Radio Int'l, via Cuba	
0100	9660	Radio Japan, via Gabon	
0100	9737	Radio Nacional, Paraguay	SS
0100	11960	Radio Denmark via Radio Norway	DD
0100	12050	Voice of Russia	
0100	17675	Radio New Zealand Int'l	
0130	5678	Radio Ilucan, Peru	SS
0130	5770	Radio Miskut, Nicaragua	SS
0130	6155	Radio Telefis Eireann, Ireland, via England	
0130	7450	Voice of Greece	Greek/EE
0130	9575	Radio Medi-Un, Morocco	AA
0130	11915	Radio Gaucha, Brazil	PP
0200	5077	Caracol Colombia	SS
0200	5965	Radio Havana Cuba	SS
0200	9445	Voice of Turkey	TT
0200	9615	Radio Cultura, Brazil	PP
0200	9840	Radio Budapest, Hungary	HH
0200	11700	Radio Bulgaria	
0200	11725	Radio Romania Int'l	
0200	11730	Broadcasting Svc of Kingdom of Saudi Arabia	AA
0200	11800	RAI, Italy	
0200	11830	Radio Anhanguera, Brazil	PP
0230	3360	La Voz de Nahuala, Guatemala	SS
0230	4835	Radio Tezulutlan, Guatemala	SS
0230	4890	Radio Chota, Peru	SS
0230	4955	Radio Nacional, Colombia	SS
0230	5386	Radio Huarmaca, Peru	SS
0230	9495	Radio Sweden	
0230	11945	UAE Radio, Dubai	
0230	15120	Radio Filipinas, Philippines	EE/Tagalog
0245	11785	Qatar Broadcasting Service	AA
0300	4800	Radio Lesotho	vernacular
0300	4919	Radio Quito, Ecuador	SS
0300	4980	Ecos del Torbes, Venezuela	SS
0300	5960	Radio Taipei Int'l, via WYFR	
0300	7125	Voice of Russia	
0300	9470	Radio Denmark via Radio Norway	DD
0330	4830	Radio Tachira, Venezuela	SS
0330	4845	Radio K'ekchi, Guatemala	SS
3300	7465	WRMI, Florida	
0330	9490	Abkhar Radio, Abkhazia	various
0330	9690	Adventist World Radio via South Africa	Somali
0330	9830	Voice of Vietnam, via Russia	
0400	3306	Zimbabwe Broadcasting Corp.	
0400	4775	Trans World Radio, Swaziland	
0400	4820	Radio Botswana	vernacular
0400	5040	Georgian Radio, Georgia Rep.	Georgian
0400	5055	RFO, French Guiana	FF
0400	6055	Radio Exterior de Espana, Spain	SS
0400	6065	Christian Voice, Zambia	
0400	9435	Kol Israel	
0400	9610	Swiss Radio Int'l	
0400	11740	Radio Romania Int'l	
0430	5020	La Voix du Sahel, Niger	FF
0430	9580	Radio Yugoslavia	
0430	11850	Radio Yugoslavia	
0500	4770	Radio Nigeria	
0500	4850	Cameroon Radio TV	FF
0500	5025	Radiodifusion du Benin	FF
0500	7255	Voice of Nigeria	
0500	9460	Voice of Turkey	
0500	9550	Radio Havana Cuba	
0500	9885	Swiss Radio Int'l	
0500	9900	Radio Minurca, Central African Republic	
0500	11720	Channel Africa, South Africa	
0500	11950	Radio Nacional, Angola	PP
0500	13820	Croatian Radio	EE/Croatian
0500	17580	RTBF, Belgium, via Germany	M-F
0530	5004	Radio Nacional, Equatorial Guinea	SS

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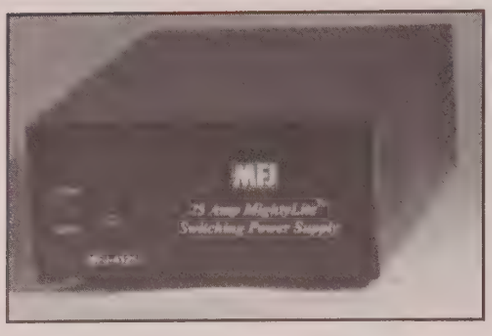
UTC	Freq.	Station/Country	Notes
0600	4915	Ghana Broadcasting Corp.	
0600	4920	La Voz Evangelica, Honduras	SS
0600	5100	Radio Liberia Int'l	
0600	5945	Croatian Radio	EE/Croatian
0600	6140	Deutsche Welle, Germany	
0630	6015	Radio Austria Int'l, via Canada	
0630	7230	Radio Japan	
0630	7345	Radio Prague, Czech Republic	GG
0700	5975	Voice of Hope, via Germany	
0700	6185	Radio Educacion, Mexico	SS
0730	5020	Solomon Islands Broadcasting Corp.	
0730	11655	RTV Tunisienne, Tunisia	AA
0800	4935	Radio Capixaba, Brazil	PP
0800	6130	CHNX, Nova Scotia, Canada	
0800	6155	Radio Australia	
0800	7120	Italian Radio Relay Service	
0800	9525	Voice of Indonesia	
0800	9700	Radio New Zealand Int'l	
0830	7230	Adventist World Radio, Italy	II
0900	4790	Radio Iquitos, Peru	SS
0900	6060	Radio Nacional, Argentina	SS
0930	5055	Faro del Caribe, Costa Rica	SS
0930	5950	Voice of Guyana	
0930	6010	Radio Mil, Mexico	SS
0930	7170	Radio Corporation of Singapore	
0930	11635	Far East Broadcasting Co., Philippines	
0930	11710	Radio Vilnius, Lithuania	
1000	3315	Radio Manus, Papua New Guinea	Pidgin
1000	4600	Emisora Villamontes, Bolivia	SS
1000	4950	Radio Bahai, Ecuador	SS
1000	9865	Trans World Radio, Guam	
1030	3280	La Voz del Napo, Ecuador	SS
1030	3395	Radio Eastern Highlands, Papua New Guinea	Pidgin
1030	4915	Radio Cora, Peru	SS
1030	4996	Radio Andina, Peru	SS
1030	9545	Radio Universo, Brazil	PP
1100	6150	Radio Singapore Int'l	
1100	7445	Voice of Asia, Taiwan	
1100	11690	Radio Jordan	
1130	4890	NBC, Papua New Guinea	
1130	9930	KWHR, Hawaii	
1200	9545	Voice of America, via Tinian Island, No. Marianas	CC/KK
1200	9580	Radio Australia	
1200	11745	Voice of Free China, via WYFR	
1200	11760	Radio Havana Cuba	SS
1200	11815	Radio Exterior de Espana, Spain	SS
1200	13650	CBC via Radio Canada Int'l;	
1200	15155	Radio France Int'l	
1200	15295	Radio Tashkent, Uzbekistan	
1200	15445	Radiobras, Brazil	
1230	9870	Trans World Radio, Guam	Hakka
1230	9885	Radio Thailand	
1230	12005	HCJB, Ecuador	
1230	13730	Radio Austria Int'l	
1230	17895	Radio Sweden	
1300	7265	Radio Veritas Asia, Philippines	V V
1300	9615	KNLS, Alaska	
1300	12035	Virgin Radio, via Merlin Network One, England	Saturdays
1300	15695	Radio Free Asia, USA	Tibetan
1300	17715	Voice of Turkey	RR
1330	15610	Voice of Russia	RR
1400	15650	Kol Israel	
1400	17535	Kol Israel	
1445	15020	All India Radio	unid
1500	9330	Radio Pakistan	RR
1500	9515	BBC, England, via Canada	
1500	11660	Radio Australia	
1500	11905	Sri Lanka Broadcasting Corporation	Hindi
1500	12010	Radio Mariya, Poland, via Russia	Polish
1500	15084	Voice of Islamic Republic of Iran	Farsi
1500	15200	Radiodiffusao Portuguesa, Portugal	PP
1510	9585	Trans World Radio, Swaziland	Malagasy
1530	11695	Far East Broadcasting Assn., Seychelles	EE, others
1600	8000	Voice of Sudan (clandestine)	
1600	15315	UAE Radio, Abu Dhabi	
1600	15440	Deutsche Welle, Germany	GG
1600	21500	Voz Cristiana, Chile	SS
1630	11530	High Adventure Radio/ Voice of Hope, Lebanon	
1700	17860	Channel Africa, South Africa	
1700	17860	Channel Africa, South Africa	
1730	13670	Radio Vlaanderen Int'l, Belgium	
1730	15355	Radio Japan, via Gabon	
1740	12115	Radio Almaty, Kazakhstan	German
1800	11620	All India Radio	
1800	15075	All India Radio	
1830	9495	Radio 21 Pristina, via R. Netherlands	Albanian
1830	12160	Radio Telefis Eireann, Ireland, via WWCR	M-F
1900	12070	Voice of Russia	RR
1900	15476	Radio Nacional Arcangel San Gabriel, Antarctica	SS
1930	11960	Radio Minsk, Belarus	Tu/Th
1930	13720	Voice of Islamic Republic of Iran	
1930	17660	HCJB, Ecuador	
2000	11715	Radio Algiers Int'l, Algeria	
2000	11820	Qatar Broadcasting Service	AA
2000	13700	Radio Netherlands	
2000	13710	Swiss Radio Int'l, via Fr. Guiana	
2000	17895	Qatar Broadcasting Service	AA
2030	13610	Radio Damascus, Syria	
2030	15160	Radio Algiers Int'l, Algeria	
2030	15435	Radio Jamahirya, Libya	AA
2100	11815	Radio Brazil Central	PP
2100	11890	Radio Oman	AA
2100	15345	RT Marocaine, Morocco	AA
2100	15505	Radio Kuwait	AA
2100	17825	Radio Japan	
2130	11845	Radio Finland Int'l	Finnish
2200	6279	Voice of Hope, Lebanon	AA
2200	9990	Radio Cairo, Egypt	
2200	11565	Radio Taipei Int'l, via WYFR	
2300	6010	Radio Inconfidencia, Brazil	PP
2300	17680	Voz Cristiana, Chile	SS
2330	6090	Radio Tirana, Albania	Albanian
2330	6165	Radio Netherlands via Bonaire, NWI	
2330	7125	RTV Guinenne, Guinea	FF
2330	9385	KHBI, No. Marianas	
2330	9715	Radiodiffusao Portuguesa, Portugal	PP
2330	9755	Radio Canada Int'l	
2330	11100	China National Radio	
2330	13625	All India Radio	
2330	13650	Radio Pyongyang, North Korea	SS
2330	15345	RAE, Argentina	SS

product parade

Review Of New, Interesting And Useful Products



MFJ's new 25 amp switching power supply retails for $109.95.

MFJ's New 25 Amp Switching Power Supply

You can power your transceiver and accessories with MFJ's new streamlined-size 25 amp MightyLite™ switching power supply. The new power supply meets all FCC Class B regulations and your radio contacts won't hear any RF hash on your signal.

The new MFJ power supply has less than 35 mV peak-to-peak ripple under a 25 amp load and load regulation is better than 1.5 percent under full load. Features include heavy-duty five-way binding post for high-current transceivers, speaker-type terminals for low-current accessories, over-voltage and over-current protection, a quiet internal cooling fan, and switchable input voltage: 110 Vac or 220 Vac. The supply works with AC input voltage from 85 to 135 Vac or 170 to 260 Vac and carries MFJ's famous No Matter What™ one-year limited warranty.

The MFJ-4125 retails for $109.95. To order or for your nearest dealer, call 800-647-1800 or FAX 601-323-6551. You can also E-mail them at <mfj@mfjenterprises.com> or check out their Website at <http://www.mfjenterprises.com>.

PowerPort Quick Draw Radio Holster

Reach for the sky! Cutting Edge Enterprises of Santa Cruz, California, announces their new pouch with features you won't find anywhere else. If you've ever been poked in the ribs and elbow by the antenna on your HT, the Quick Draw Holster will give you relief. It holds your radio on your belt in the antenna-down position! Reception is not adversely affected, and it's much more comfortable.

The clip hooks onto your belt and won't come unfastened when you pull your radio out of the pouch. This is Cutting Edge's latest in their line-up of innovative radio pouches. It's available for the following radio models: Yaesu VX-1R, IC-Q7, IC-R5, C508A, C108A, DJ-C1T, DJ-C5T, and FR-460.

Constructed of soft glove-quality leather, this pouch is a great union of form and function. For more information on the holster, which sells for $19.95, contact Cutting Edge Enterprises at 1803 Mission Street, Suite 546, Santa Cruz, CA 95060 or phone 800-206-0115 or E-mail them at <cee@cruzio.com> and be sure to tell them you read about it in *Popular Communications.*

This new Quick Draw Holster from Cutting Edge Enterprises can be ordered to fit several radios. It holds your radio with the antenna pointed downward.

The new MFJ Helping Hands (VEC-7400) tool sells for $14.95.

New MFJ "Helping Hands" Tools

MFJ announces a series of four new products for do-it-yourselfers. The new MFJ-7104, priced at $6.95, is a four-inch tapered head diagonal cutter plier. They're extra durable with green cushion grips and suitable for soft wire below diameter of 1.0mm.

The new MFJ-7106 is a six-inch all-purpose standard beveled edge wire cutter. Priced at $11.95, it offers exceptional strength and is suitable for cutting coax and other thicker wire.

Also new is MFJ's 7114 four-inch needle-nose pliers. They cost $6.95 and have green plastic-coated cushion grips.

Perhaps the neatest new tool from MFJ is their VEC-7400 Helping Hands with a two-inch magnifying glass. It holds objects at any angle and leaves both hands free. At $14.95, this gem is what

BY HAROLD ORT AND R.L. SLATTERY

every hobbyist needs. It helps you repair and assemble products with ease. It features six ball joints, nickel-plated fittings, heavy cast-iron base, alligator spring clips, and locking thumb screws.

For more information on these MFJ products, contact MFJ Enterprises at P.O. Box 494, Mississippi State, MS 39762 or check out their Website at <http://www.mfjenterprises.com>. You can also call MFJ at 800-647-1800.

New MFJ Wall Clock

MFJ has done it again! Their new MFJ-126 quartz wall clock with 12-inch diameter face can be seen from 20 feet away. You get 12-hour digits on a clean, white face, 24-hour timeline trim, seconds digits, and multicolored attractiveness that'll brighten any wall.

The new clock has red stop points and seconds digits that accentuate the handsome black hands and 12-hour digits. It's easy to set with one simple turn dial on the back, and operates on a single "AA" battery (not included). Made of hard, durable plastic, this clock will give you years of use.

MFJ's new 12-inch wall clock is a must-have in your monitoring post or ham shack.

You can order the MFJ-126 for $24.95 directly from MFJ Enterprises at P.O. Box 494, Mississippi State, MS 39762 or at 800-647-1800 or FAX them at 601-323-6551. MFJ Enterprises is also online at <http://www.mfjenterprises.com>.

Cop Talk!

From BookWorld Services in Sarasota, Florida, comes this great new book by Laura Quarantiello. If you're interested in eavesdropping on police radio communications, you need a copy of *Cop Talk!* We liked this book a lot! It takes the mystery out of law enforcement jargon and practically puts you in the squad car. From dispatch to special operations, *Cop Talk!* gives you everything you need to know including expert answers from a law enforcement insider and 17-year scanner monitoring veteran.

This new book shows you how to choose a scanner, how to set it up for best results, how to find local police radio frequencies, how police radio systems are organized, police frequency ranges, sample "10" codes, common abbreviations, nationwide frequencies, expert monitoring techniques, and much more.

Cop Talk! is distributed exclusively by BookWorld Services, 1933 Whitfield Park Loop, Sarasota, Florida 34243. The new second edition retails for $14.95. Phone 800-444-2524 or FAX them at 941-753-9396. You can also E-mail BookWorld at <sales@bookworld.com> or visit their Website at <http://www.bookworld.com>. Be sure to tell them you read about *Cop Talk!* in *Popular Communications*. ■

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scan tech

Trunking, Tips, Techniques, And Mods

Making The Computer Connection

There has been a lot of talk almost everywhere you look about the computer/radio connection and the ability of the computer to help with your radio monitoring. I thought (right away, you can tell we're in trouble — Harold always says "don't let the scanner guy think") it might be worth taking a look at the concept in general, and then some specific details about what you need to get connected.

You may recall, if you've been a regular reader, that I like to make a distinction between computer control of the radio and computer-assisted scanning. I suppose one could go a step further and also discuss computer management or something like that, where the computer is used to manage the information or keep track of data, but does not actually connect to the radio. There are lots of applications for this, so don't think I'm selling it short — but it's not the focus of our discussion here.

Bartholomew says "Hey folks, if I can figure this out, so can you!" An old IBM semi-portable and an Optoscan-controlled PRO-2042 make an excellent computer control system.

Computer-assisted scanning is to use the computer to upload and download frequency information, or possibly to upload logging info, or manage trunk talkgroups. The computer is connected to the radio, but probably only part-time. The radio really performs the work of scanning, and the radios memories are used to know what to scan next.

Some radios, particularly handhelds, are built with this idea in mind, and really can't be used with the computer in any other way. A good example of this is the PRO-64 and PRO-2041 series from RadioShack. These (now discontinued) radios allow for download of the memories from the computer to the radio, but that's it. It's a one-way trip — the computer can't even read the current contents of the memories — it can only fill them up with new data.

Computer-controlled scanning is where we use the radio only as a receiver — it receives the signal and processes the audio if there's anything to listen to, but the brains of the operation are turned over to the computer. The radio becomes a computer peripheral in essence. Obviously, we must have a computer connection for this to work, or we go back to using the radio's internal processor to do the work. Some radios, such as the ICOM PCR-1000, WinRadio, and the new OptoCom, are built to operate in this mode exclusively. Others give us a choice; the radio is perfectly capable of working as a scanner all on its own, but if we choose to hook it to a computer, we can operate in the computer assist mode (upload and download memories) or give complete control over to the computer.

Mostly High-End Receivers

Not surprisingly, most of the radios that are available with computer interfaces are the high-end receivers. A computer interface is something that many of the major manufacturers of traditional scanners only recently realized that we wanted. So, these radios can be used in either a computer assist or computer control application. It depends entirely on the software as to what functions are available, and it depends on the radio/computer/software combination as to how effective the whole combination will be. I have seen systems where the computer caused the whole thing to run slower, which is obviously not a good idea. Computer assist might be smarter in those cases.

What Difference Does All This Make?

Well, perhaps none, but my purpose is to get you thinking about what you want the computer/radio connection to do for you before you get too far into it and realize you're missing something, or spend a bunch of money on a system that you don't use much. It takes a bit more radio and a bit more computer to do a good job of computer control versus assist. And if all you want to do is download new frequencies to your handheld once a year as you go on vacation, there's not much point in assembling a great computer control system, is there?

The main advantage of a computer-

BY KEN REISS <armadillo1@aol.com>

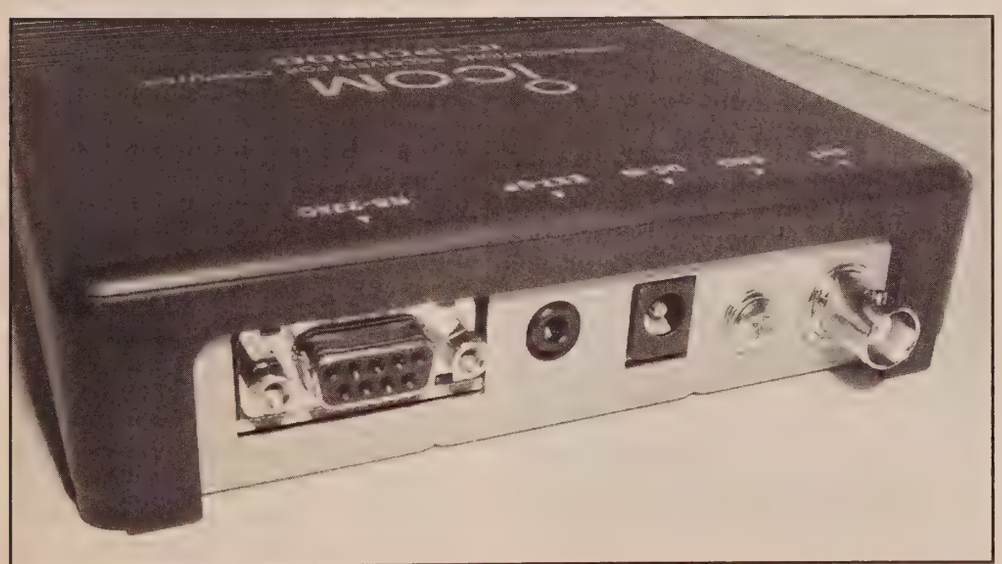
Many newer receivers have the interface built right in. Memory upload and download, as well as complete computer control, is possible depending on software.

assisted system is obvious. You don't have to spend the better part of a day reprogramming your radio every time you want to make changes. And you also don't have to type all that information on the tiny keyboard that most scanners offer. If you've got fingers anywhere near the size of mine, not typing on a scanner keyboard is a great thing, all by itself. Because it's not as much trouble to reprogram, you tend to do it more often, and therefore, hopefully, you'll hear more stuff.

The added advantages of computer control may be a bit subtler. One of the big advantages is the amount of feedback you can get from the system. While the system is scanning, there's a lot more information available on a computer screen than on most radio displays. Information about who's talking, signal strength, what frequency is active, what the most recent active channels are, etc., is all available on most computer control systems.

You can log the data. And on some systems, even record the audio. This way, the system can be working for you, helping to locate frequencies that you didn't know were active while you're not there to watch it. Then when you have a chance, you can look at the information and see what's worth checking out.

The computer-controlled systems can apply some intelligence to your scanning. If you'll remember a few months back, we talked about focus. The computer has a lot more processor power than the scanner, so what can be done is really up to the software and how you've configured it. The bottom line is that you should get more information from your scanner, and hear more communications continuity.



Receivers like this PCR-100 from ICOM require a computer to function. Just plug the supplied cable into the 9-pin connector at the left and away you go!

What You'll Need

Now that you've decided what kind of system you want to put together, you're ready to begin assembling the pieces. It turns out that you need exactly the same stuff, in general terms, regardless of what you've decided. The difference is really in what the radio is capable of doing, and what the software offers. If you're starting from scratch, you'll want to make sure you pick a radio that offers the advanced features for computer control, if that's the direction you're heading. If you've already got a radio and just want to get it connected, we can eliminate the shopping step. If you're only interested in computer assistance, your choices will be greater and offer a wider price range than true computer control systems, although that gap is narrowing.

Making The Connection

There are four things that you'll need to make a computer to radio connection. Of course, you'll need a computer controllable scanner. A lot of what you'll be able to do depends on the capabilities of the scanner itself, and how much computer control it supports. Some radios support complete control, while others allow only memory management.

Second, you'll need a computer to hook it to. Here again, depending on what you're out to do, how much computer you really need can vary greatly. One thing is for sure: you're certain to need a free serial port on the computer. So far, all radio/computer connections that I'm aware of run through a serial or COM port. Most computers, even very old ones, have at least one COM port, even two is common. With an older machine, the assumption was that the mouse would run through that port. Mouse, schmouse, connect to the radio! Newer computers are likely to have a dedicated mouse port, and run more recent versions of Windows that manage this much better. You'll also need to look at the software requirements as you're selecting your radio computer and

More advanced computer control receivers like the OptoCom make trunking and a host of other reception modes possible, depending on software and connections. The OptoCom has a very complete range of connectors on the rear panel, including an RS-232 connection. While not connected to the computer, the OptoCom is capable of operating as a 100 channel stand-alone scanner.

make sure you have enough horsepower to run the software.

One final word of caution on the computer end. It's easy to assume you'll simply use the computer you have now. You know, the one that you use to play games and check E-mail. That machine is probably perfectly capable of running a computer control system, but take it from experience — once you get a system up and running, you're gonna want it running all the time, and doing real work interferes with that plan. If you can, look at the used market, or drag that older PC out of the closet and use it. Lots of control software runs in DOS, and the ones that require Windows will run acceptably on a 486/66, although more speed is always better when dealing with Windows applications. If you're going to only use the computer for memory management, or other infrequent tasks, then your main computer will be just fine, as it won't be tied up all time running the control software.

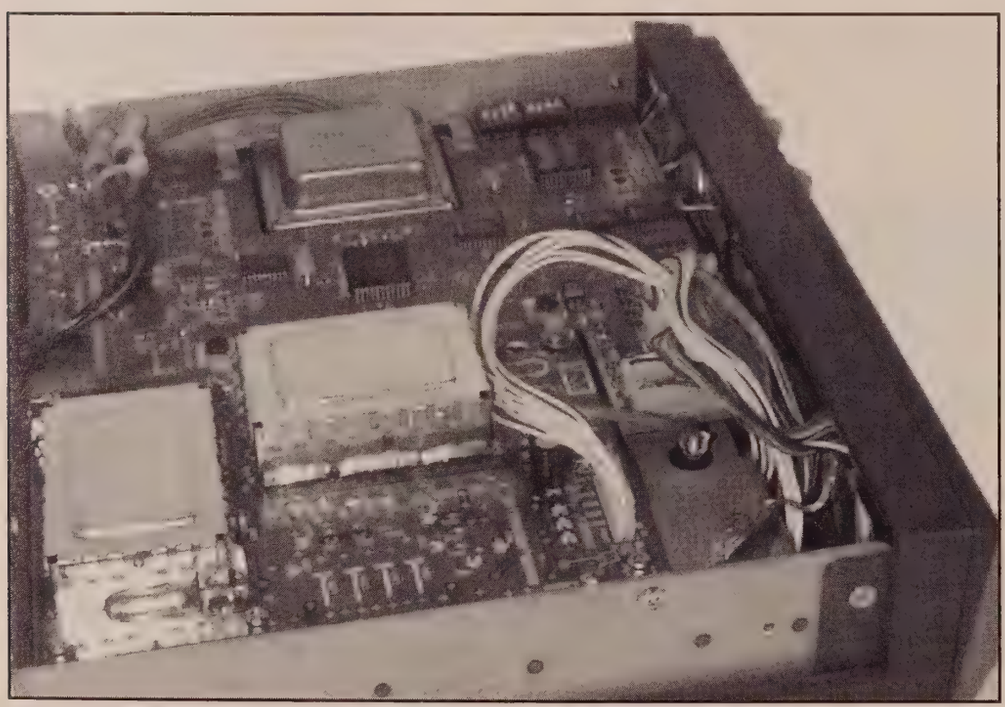
Item number three on our list is the infamous interface. This one's a bit tricky. Sometimes, the interface is included as a part of the radio, other times it's a completely separate device. You'll have to find out what your system requires, but here's a hint. If the connector on the back of the radio looks like a computer connector (9 or 25 pin standard "DB" type), there's a better than average chance that you're all set. If it doesn't, you're probably going to need something special. Not always, but frequently.

The interface has the job of taking data that comes out of your computer at computer levels and in computer language, and converting it to something the radio can understand. And converting the radio's replies back to something that makes sense to the computer. On some radios, the OptoCom, PCR-1000 and the WinRadio, for instance, the computer is intended to control the radio all the time, so the necessary hardware is built right into the system. Just plug from the computer to the radio and away you go.

On other radios in the ICOM series, with the notable exception of the R-8500 and the just mentioned PCR series, the radio is intended to stand alone, but the computer connection is provided. On those radios, you need a device called a CI-V (Communications Interface 5) to transfer the data. The R-8500 has both a CI-V and a direct RS-232 connection for the computer.

On other systems, like the popular Optoscan series, the interface is included in the interface. What? Well, the Optoscan unit is itself an interface, providing computer control to a radio that didn't have it previously. It is self-contained, so once you've installed the Optoscan interface into your radio, it provides a computer DB-9 connection on the rear panel.

Many handhelds that have computer interfaces really have the interface hardware built-in, but to save space, they use some strange connector. Finding one of these can be quite a trick, and usually your best bet is to buy the manufacturer's kit if one is available. Often the kit comes with a cable and some software, other times it's just an interface and cable, and



The popular Optoscan series of add-on boards for the PRO-2005/2006 has to be installed inside the receiver. However, once installed, a radio that previously had no computer connection now has one of the best and most versatile computer control interfaces in the industry. Unfortunately, the OS series does not support upload/download of frequencies, so it has to be used in a computer-control situation.

you still have to provide a cable from the computer to the interface. Some of the software manufacturers also have cable/interface kits available, so check with whomever writes the software and see what they recommend.

It's a good idea to have a bunch of extra cables laying around if you're going to do much of this, but if the manufacturer supplies a cable, I've learned that it's always best to use that cable when setting the system up. You can experiment later with longer or nicer cables, but until you're sure that everything works correctly, use their cable.

Finally, you need some software to make the whole thing work. What you'll want in software depends a lot on what you're trying to do, what radio you're doing it with, the manufacturer's commitment to software, any that they may make available, and how well they support third party developers. It seems like the more software available for a particular scanner, the more likely it is that someone will want to own one of those radios to run some piece of software, so everyone wins. But many manufacturers don't release or document their computer interface commands. Particularly if you want to write your own software, you'll need to pay close attention to this feature!

Many radios are supported by the major programs in the radio software market. Specifically, ScanStar and ScanCat have the longest list of radios that are supported by their systems. Another great product that's fairly versatile (and shareware) is Radio Manager. Other programs support only one radio, but may do a better job of it than the general programs, and all of that depends entirely on what you want from the software, and your personal taste as to what's easy, cool, and fun. Have fun shopping. Many of the programs have demonstration versions which can be downloaded from the Internet, but a few do not. See the sidebar for a few Websites worth checking out. If you're just getting started and have to buy a radio as well to make this connection, you might actually want to shop the software first and find features you're interested in and then buy a radio that is supported by the software!

Generally, I've found that if you just want upload/download, you'll be better off with a program written specifically for your radio. It is likely to support all the features of that radio in a way that's very similar to the actual operation of the radio, and make things easy to understand. If you're after computer control, then it's worth a look at the third party programs. Many of them support multiple radios, which may or may not be a consideration for you, but these programs tend to have the most "control" type features, and were largely written with the idea of a full-time computer/radio connection in mind. Then the only trick left is to find software that makes sense to you.

Make It Work!

Once you've selected a radio interface unit if necessary, which computer you're going to put it on, and the software to run the whole mess, you're set to go. Almost. It might be that everything will plug together and you'll be off and running just like you'd expect. But sometimes a glitch or two creeps in, and they're worth knowing a little about.

The biggest problems, according to one software vendor that I talked to, is user problems (didn't read the manual, or didn't follow its advice) and serial problems. I can't help much with the user problems except to tell you that the manual is there for a reason, and if you've never done this before, it's worth struggling through it a second time after you've worked with the program for a while. You'll be amazed at the number of tricks and shortcuts you can pick up. I'll be the first to admit that most of the manuals are terrible. But if it's a piece of software that you rely on regularly, it's worth knowing as much as you can.

Serial problems, the second leading cause of trouble, fall into about three categories. The first is hardware problems; something isn't connected right, or the cable that you're using doesn't support all of the pins necessary for the software. It turns out that you can do serial communications with only three wires.

Now wait a minute, Dudley. My serial connector has nine or 25 pins! Yes, and quite frankly, they aren't all used. RS-232 is the standard, which defines what's required and where the pins go, but it defines all nine or 25 pins, which are almost never used at the same time. But there are signals on some of the other wires that do get used from time to time, particularly by radio control software.

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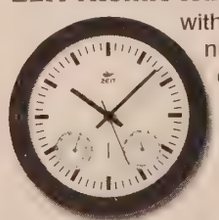

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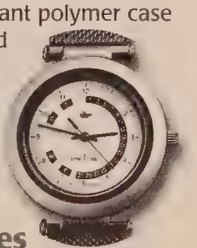

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CIRCLE 60 ON READER SERVICE CARD

They all have alphabet soup kind of names like DTR and CTS, but if they're not used, then you don't really need that line in your cable. The folks who make cables know this, and particularly the "budget" cables don't carry all the wires. That's why you should set up your system with the cables that come with it, or make sure you get high quality cables that have all the lines you need, before you start messing with things. You can save yourself a lot of headache.

The second "serial" problem is really a software problem, and it's frequently caused by the person in charge. It's very easy to confuse ports, or to connect to the wrong port, or to miss a setting in the software that directs the signals to the spot that's attached to your radio. You need to go back through all the computer settings that affect serial ports. Don't forget the control panel settings particularly in Windows™ 95 and 98.

Sometimes a piece of software that you don't even use can get control of a serial port and cause all kinds of frustration. As a case in point, I had a computer that I was attempting to put ScanStar on and kept getting a message that the serial port was busy or not available. Well, it was available and the radio was already hooked to it, for Pete's sake (who's Pete and why do we do things for his sake anyway?). It turned out that there was some FAX software that had been installed on the machine long before I owned it that was apparently configured to talk to that serial port. It took over the port at startup, and never let go. Once I removed the FAX software, everything worked fine.

One other factor that is a frequent cause of frustration dealing with serial ports is IRQ conflicts. Yeah, they irq me too, but in this case, it stands for "Interrupt Request." Now this has nothing to do with your spouse either — mine just interrupts without any notification whatsoever. IRQs are how your computer deals with much of the outside world.

To make a long story short, so the computer engineers don't write letters and tell me how wrong I am, the interrupts are used to get the attention of the processor any time a device (that uses them) is trying to do something that requires the attention of the processor. IRQs are numbered, and the operating system has to know which number is associated with what device. There are 15 available IRQs available, used for everything from mouse movements to serial communications to sound generation.

On older PCs, it was common to have two serial ports built in, but provisions were made for up to four. Sometimes, you actually added a card with the other two, but often the unused ports were left "mapped" to the two that existed. What that means in English is that COM 1 could also be referred to as COM 3 and the software would know how to handle it. Of course, you could only have one device physically plugged into the COM 1 port, so there wasn't much sense in using these phantom ports until internal modems got popular.

You see, your computer thinks a modem is also a COM port, and assigns it a number. If your system also has the customary two serial ports, you're using three of the standard four, but there are only two IRQs assigned for this purpose, by default. On some systems, if you have an open IRQ, it can be reassigned to the modem, but if not, or you have no open IRQs, then the two will have to share.

Simply put; if you're aware of this problem, it's usually not a big deal as long as you don't need to use the two devices that share at the same time. If you wind up with your modem and a radio sharing, it's probably not going to cause a problem unless some modem software is active while your scanner is running. You can get very unpredictable results from an "IRQ conflict" as it is called. These can range from something (usually your radio since it was the last device added that is requesting CPU time and attention) not working, to all kinds of things that shouldn't happen. I once had a modem and printer sharing an IRQ. Worked great, unless I forgot and tried to print something while on the modem — then the modem hung up, and the printer kicked out all sorts of garbage. After a few incidents, I learned.

The bottom line is that most of the computer/radio connection problems are things we induce ourselves. If your computer is relatively new, or if you haven't used it for much other than the things that came with it when you bought it, the system is probably just fine, and the IRQs needed will be available. If you use the cable that comes with the radio interface (if there isn't one included, follow the recommendations for what kind of cable to buy), and follow the setup instructions, you should get a good connection the first time out. It will be a lot of fun, and probably enhance your scanning in ways you can't even imagine. On the other hand, if you're a bit of a computer hacker and love to install new devices and software, you're more likely to have problems, but you're probably more able to deal with them too. You learn so much more when things don't go right.

Software Demos

Many of the popular control programs have Websites available and feature demonstration versions of the software.

ScanCat — www.scancat.com
ScanStar— www.scanstar.com
Radio Manager — www.interplaza.com/bensware/rm.htm
Probe (maintained by a user, not the company) — home.ptd.net/~pro2006/

What's On Your Mind?

Have a question? Found a new technique? Want to share your frequency list with others? Write in! You can E-mail me at <armadillo1@aol.com>, or by more traditional methods at Ken Reiss, 9051 Watson Rd., St. Louis, MO 63126-2220. Until next month, Good listening! ■

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how I got started

Congratulations To David Baird Of Catlin, Illinois!

Our November winner at his well-appointed shack in Illinois.

Popular Communications invites you to submit, in about 150 words, how you got started in the communications hobby. Entries should be typewritten, or otherwise easily readable. If possible, your photo (no Polaroids, please) should be included.

Each month, we'll select one entry and publish it here. Submit your entry only once; we'll keep it on file. All submissions become the property of *Popular Communications*, and none will be acknowledged or returned. Entries will be selected taking into consideration the story they relate, and if it is especially interesting, unusual, or even humorous. We reserve the right to edit all submitted material for length, grammar, and style.

The person whose entry is selected will receive a one-year gift subscription (or one-year subscription extension) to *Popular Communications*. Address all entries to: "How I Got Started," *Popular Communications*, 25 Newbridge Road, Hicksville, NY 11801 or E-mail your entry to <popularcom@aol.com>, letting us know if you're sending photos.

Our November Winner

Pop'Comm reader, David Baird of Catlin, Illinois, writes "More than 35 years ago, I talked to my parents via a phone patch from aboard the U.S. Navy ship I called home at the time. I was thrilled by the miracle of radio and vowed to get my ham license after my four-year stint in the Navy. Two years later, I was running phone patches from my home for other sailors and military personnel around the world.

The miracle of radio wave propagation allowed me to talk to other hams around the globe and to 'just listen' to world radio shortwave broadcasts — hobbies I hope I'll never outgrow.

Today, my activities focus on VHF and UHF communications and I'm gearing up to use the many communications satellites to talk with hams and hopefully a space traveler now and then.

When I'm not operating on VHF and UHF, I'm monitoring the region on a variety of scanners or playing with my computer." W. David Baird, WA9PDS■

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the listening post

What's Happening: International Shortwave Broadcasting Bands

Tests From New VOA Sri Lanka Relay

The new Voice of America relay station at Iranawila, in Sri Lanka has begun tests broadcasts, which means it should be in full operation by the time you read this column. The site has four-500 kW transmitters. Frequencies used for the tests included **6010, 7115, 11695, 15115, 15175, 15460, 15565, and 17650,** in English, Chinese, and Tibetan. These may or may not be in use as part of the full schedule, but it's a place to start. Certainly many more frequencies will be used once the station is in full operation.

No more Radiobras? It seems that Brazil's English service to both Europe and North America has disappeared. The broadcasts are normally scheduled at 1200 on **15445** (to Europe) and 0200 on **11780** (North America).

Trans World Radio and HCJB are cooperating on an effort to put up a shortwave broadcasting facility in Burkina Faso. Apparently, both stations would use the transmitter(s) at various times. This effort is still in the "may we?" stage, so we won't be hearing signals from this one for probably at least a year. Incidentally, Trans World Radio has now added a fifth transmitter at its Agana, Guam, site.

Several people have noticed the technical problems the Voice of Turkey has been having (whether they have noticed is another question!). The station puts in very strong signals on many of its channels, but at least three of them (**9445, 9460, and 15225**) suffer from very low audio levels, so much so that they are useless.

The absence of Merlin Network One (England) from shortwave was pretty brief. They are back on the air, airing programming by Virgin Radio from the Skelton site Saturdays from 1300 to 1700 on **7130, 9750,** and **12035**; Fridays 2100 to 0100 on **7325 and 9720**; 2100 to 0300 Fridays on **6140**, and 2300 to 0100 Fridays on **6015**. Some of the programming is announced as if it were by another radio "station," i.e. "Global Sound Kitchen" is included within these time blocks. It may be that Virgin Radio may be selling the time to someone else! MNO operates transmitters for the BBC and sells unused air time to independent programmers.

You'll need to act quickly if you'd like to get a "vintage" QSL card from Radio Australia. They're sending them out as part of their 60th anniversary, and the supply is limited. December 20th is the deadline. Good luck!

As you probably know, each month we award a shortwave or related book to a reporter whose contributions have been outstanding — either in the quality of loggings submitted or faithfulness or in the submission of other useful material, or a combination of the above. This month's winner is Michael Miller of Issaquah, Washington, who hardly ever misses a month in sending in a fine selection of loggings. Michael will receive a copy of the year 2000 edition of *Passport to World Band Radio,* courtesy of **CRB Research Books** — The Radio and Electronics Hobby Bookstore, P.O. Box 56, Commack, NY. You can call 516-543-9169 for a catalog or visit their Website at <http://www.crbbooks.com>. Our thanks to CRB Books for their support!

Remember your reception logs are always welcome. Just be sure to list items

A Radio Veritas Asia staff member in a studio control room. (Photo by Marty Foss)

"Listening Post" reporter Marty Foss, his wife Vilma, and staff member Gabby Salcedo at Radio Veritas Asia.

BY GERRY L. DEXTER

Reporter Foss in front of Radio Veritas Asia. The antenna in the background relays RVA programming to the transmitter site in Palauig, in Zambales Province.

by country, with a minimum double-space between each one — it greatly enables scissors navigation! Also be sure to include your last name and state abbreviation after each item. Other things we can put to good use are spare QSL cards you don't need returned, station photos, and other materials, including schedules. And how about a photograph of you at your listening post? We'll be glad to do our bit to help make you a DX star! As always, thanks so much for your continued interest and cooperation!

Here are this month's logs. All times are in UTC, which is five hours ahead of EST, i.e.0000 UTC equals 7 p.m. EST, 6 p.m. CST, 5 p.m. MST, and 4 p.m. PST. Double capital letters are language abbreviations (FF = French, AA = Arabic, SS = Spanish, etc.). If no language abbreviation is included, the broadcast is assumed to have been in English.

ALASKA — KNLS, **9615** at 1200–1300 in Mandarin, 1300–1400 in English. (Silvi, OH) **11780** at 1752 with RR Bible broadcast. (Miller, WA)

ALGERIA — Radio Algiers Int'l, **15160** at 2042 with news. (Miller, WA)

ASCENSION ISLAND — BBC relay on **21660** monitored at 1649 with "Insight." (Jeffery, NY)

AUSTRALIA — Radio Australia, **9580** at 1249. Co-channel with BBC via Thailand. (Miller, WA) **11880** at 1230. "English From Australia" in EE/CC. (Northrup, MO) **15415** at 0320 with call-in opinions on GST tax in Australia. (Foss, Philippines)**17580** at 0210 with sports and **17750** at 0307 with news, ID, "Australia Talks Back." (Jeffery, NY)

BRAZIL — Radio Cultura, **9615** heard at 0206 in PP with soft vocals; **//17815**. (Paszkiewicz, WI)

BULGARIA — Radio Bulgaria, **11700** at 0215 with EE to North America. (Linonis, PA)

CAMEROON — Cameroon Radio TV, Yaounde, **4850** in FF monitored at 0051. (Paszkiewicz, WI)

CANADA — BBC via Sackville, **9515** at 1515 with "Westway." (Jeffery, NY) Radio Canada Int'l, **11855** in FF at 1235. (Northrup, MO) **13650** carrying CBC Radio One at 1210. (Northrup, MO) **13670** at 2035 with news, weather, and "Maple Leaf Mailbag." (Jeffery, NY) **15150** at 2040 with program on reptiles. (Miller, WA)

CHILE — Voz Cristiana, **15357** at 0300 in SS. (Miller, WA)

CHINA — Central People's Broadcasting Station, **15580** at 0310 in CC. (Foss, Philippines) China Radio Int'l, via Cuba, **9570** with EE to North America closing at 0400. (Linonis, PA)

CUBA — Radio Havana Cuba, **11760** in SS at 1210. (Northrup, MO)

DENMARK — Radio Denmark, via Norway, **11960** at 0100 with talk about the Danish economy. (Linonis, PA)

ECUADOR — HCJB, **12005** at 1240 and **12050** at 1240. (Northrup, MO) **17660** at 1930 with "Ham Radio Today." (Jeffery, NY)

ENGLAND — BBC, **9740** at 1131 with international news. (Miller, WA) Radio Canada Int'l via UK, **15150** at 2030 with EE to Europe. From 2030 to 2058 was //Sackville on **13650, 15235, 15470, 17820**. Other UK relays on **5995 and 11690 were not audible**. Also presumed Sackville on **15265 and 17870 were not audible**. (Silvi, OH)

GERMANY — Deutsche Welle, **15540** at 1559 with world news in GG. (Miller, WA)

GREECE — Voice of Greece, **9690** monitored at 1255 with news in Greek. (Miller, WA) **15680** at 0414 in presumed Greek. (Foss, Philippines)

GUATEMALA — Radio K'ekchi, **4845** with ID monitored at 0355 close. (Paszkiewicz, WI)

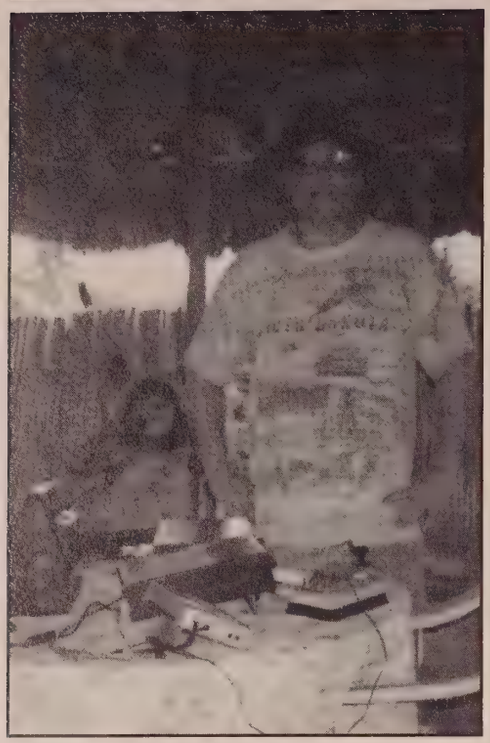
HAWAII — KWHR, **17510** monitored at 0200 with religious programming. (Jeffery, NY)

HUNGARY — Radio Budapest, **9840** in presumed Hungarian to North America at 0200 with news and commentary. (Linonis, PA)

Abbreviations Used in Listening Post

AA	Arabic
BC	Broadcasting
CC	Chinese
EE	English
FF	French
GG	German
ID	Identification
IS	Interval Signal
JJ	Japanese
mx	Music
NA	North America
nx	News
OM	Male
pgm	Program
PP	Portuguese
RR	Russian
rx	Religion/ious
SA	South America/n
SS	Spanish
UTC	Coordinated Universal Time (ex-GMT)
v	Frequency varies
w/	With
WX	Weather
YL	Female
//	Parallel Frequencies

The Palauig transmitting site of Radio Veritas Asia, the Philippines.



Marty Foss at his vacation SWL post and ham shack in the Philippines.

One of a seemingly endless variety of beautiful QSLs from Radio Japan.

INDIA — All India Radio, **13620** at 0221 in unidentified language. (Foss, Philippines) Aligarh, **15020** at 1446. Unidentified language. (Miller, WA)

IRAN — Voice of the Islamic Republic of Iran, **15084** at 1449 with political discussion in probable Farsi. (Miller, WA)

ISRAEL — Kol Israel, **15640** at 0200 in Hebrew with pops. (Linonis, PA)

ITALY — RAI International, **15240** at 0303 in II to South America. (Miller, WA) **21520** in II at 0731. (Foss, Philippines)

JAPAN — Radio Japan, **21670** at 0057 with IS, EE news. (Paszkiewicz, WI)

KUWAIT — Radio Kuwait, **13620** at 1255 in AA. (Northrup, MO)

LITHUANIA — Radio Vilnius, via Julich, Germany, **9855** at 0030 with news, talk about Kanaus. (Linonis, PA)

MOROCCO — Radio Medi-Un (tentative), **9575** at 0130 in AA, into Holy Koran. (Linonis, PA)

R.C. Watts (KY) snapped this 1993 photo of the China Radio International Building in Beijing. CRI has since moved to new and larger quarters.

NETHERLANDS — Radio Netherlands, **13700** at 2009 with blues music and ID. (Jeffery, NY)

NEW ZEALAND — Radio New Zealand Int'l, **17675** at 0104 with "Cadenza;" 0205 with national weather, ID, and "In Touch With New Zealand." (Jeffery, NY)

PAKISTAN — Radio Pakistan, on **15555** at 0305 with local vocals. (Foss, Philippines)

PARAGUAY — Radio Nacional, **9735** at 0131 with SS and Latin music. (Miller, WA) 0110 in SS with possible political speech. (Linonis, PA)

PAPUA NEW GUINEA — NBC, **4890** at 1131 EE w/rock. (Miller, WA)

PERU — Radio Chota, **4890.16**, 0030 to past 0300 in SS with Peruvian folk music. (Alexander, PA) Radio San Miguel, **6987.05,** 0100 to 0209 close with Peruvian folk music, SS announcements, national anthem at sign-off. (Alexander, PA) Radio Super Nueva Sensacion, **6674.02** from 0055 to 0228 close, Peruvian folk music, SS announcements by man and woman, ID, and off with anthem. (Alexander, PA) Radio Ondas del Rio Mayo, **6797.67** from 0105 to 0155 sign-off. Peruvian folk music, disc jockey, ID, and off with anthem. (Alexander, PA) Radio Ilucan, **5678**, 0115 to 0242 close. Peruvian folk music, SS announcements by man and woman, ID. Off abruptly with no anthem. (Alexander, PA) Radio Altura, **6479.7** at 0115 to 0316 closing. Peruvian folk music, SS announcements and talk, IDs. Off without anthem. (Alexander, PA) Radio Peru, **5640.04** at 0130 to 0302 sign-off. 0130 to 0302 sign-off. Peruvian folk music, SS announcements, ID. Off without anthem. Frequency varied slightly. (Alexander, PA) Radio Horizonte, **4535.15** at 0250 to 0353 close. Peruvian folk music, SS

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These towers beam the signal of Radio Bandeirantes, in Brazil.

announcements. Off without anthem. (Alexander, PA)

PHILIPPINES (presumed) — VOA relay, **17767** at 0234 in unidentified language with talk by woman. Barely audible. (Jeffery, NY) Radio Veritas Asia, **15530** at 0207 in Urdu beamed to Pakistan. (Foss, Philippines)

ROMANIA — Radio Romania Int'l, **11725** at 0215 with EE to North America. News, commentary, stocks, and sports. (Linonis, PA) **15105** at 0200–0257. **//11725** and other usual spots. Is this new on 15105? From 0000 to 0200, there were two other one-hour language blocks. (Silvi, OH) **17735** at 0227 with news items. (Jeffery, NY)

SAUDI ARABIA — Broadcasting Service of the Kingdom of Saudi Arabia, **11730** at 0220 with AA music, news, ID. (Linonis, PA)

SINGAPORE — Radio Corporation of Singapore, **7170** at 0928 with fast-moving local music.(Foss, Philippines)

SLOVAKIA — Radio Slovakia Int'l, **7300** to North America monitored at 0100. (Linonis, PA)

SOLOMON ISLANDS — Solomon Islands Broadcasting Corporation, **5020** at 1132 with Bible broadcast. (Miller, WA)

SPAIN — Radio Exterior de Espana, **11815** at 1215 in SS and **11910** at 1305 in SS. (Northrup, MO) **15110** at 2037 with SS and music. (Miller, WA)

SOUTH AFRICA (presumed) — Trans World Radio via Meyerton, **9510** monitored at 1925 in unidentified language. Very faint. (Jeffery, NY)

SOUTH KOREA (tentative) — On **11725** heard at 0220 with financial market report. (Linonis, PA)

SWEDEN — Radio Sweden, **9495** at 0229 with IS, ID, news, and "60 Degrees North." (Jeffery, NY)

SWITZERLAND — Swiss Radio Int'l, **9610** at 0401 with Swiss news, ID. Unsure of site. Don't think it was Switzerland or French Guinea. (Paszkiewicz, WI)

TAIWAN — Voice of Free China, **11745** at 1215 in CC. (via WYFR) Very strong on **15345** in CC at 0351. (Foss, Philippines)

THAILAND — Radio Thailand, **11904** heard at 1300. (Northrup, MO) **15395** at 0355 in presumed Thai. (Foss, Philippines) VOA Thailand relay, **11725** heard at 0212. (Foss, Philippines)

TURKEY — Voice of Turkey, **9445** monitored at 0200 in TT with music, news. (Linonis, PA) **17800** at 0351 with IS, TT IDs. (Paszkiewicz, WI)

UKRAINE — Radio Ukraine Int'l, **9560** monitored at 0000–0058 with news, commentary, local pops, choral church music. Fair and much weaker on **//5905, 6020**. **9560** covered by Radio Budapest sign-on at 0058. (Alexander, PA)

UNITED ARAB EMIRATES — UAE Radio, Abu Dhabi on **15314** in AA at 1559. (Miller, WA) UAE Radio, Dubai, **11945** monitored at 0230, in EE with news comments. (Linonis, PA)

UNITED STATES — AFRTS, (Florida) **12689.1 USB** at 1310 with news and recipes. (Northrup, MO)

VENEZUELA — Ecos del Torbes, San Cristobal, **4980** at 0340 in SS with Latin music. (Miller, WA)

VIETNAM — Voice of Vietnam, via Russia, on **7250** at 0100 talking about housing shortages there. (Linonis, PA)

ZIMBABWE — Zimbabwe Broadcasting Corporation, **3306** monitored at 0420 with talk in unidentified language; drums. (Paszkiewicz, WI)

That's all folks! Special thanks to Marty Foss for the great photos of Radio Veritas Asia featured this month. Now, let a mighty cheer rise up for the following good folks who checked in this time: Brian Alexander, Mechanicsburg, Pennsylvania; Mark Northrup, Gladstone, Missouri; Lee Silvi, Mentor, Ohio; Michael Miller, Issaquah, Washington; Dave Jeffery, Niagara Falls, New York; Marty Foss, Talkeetna, Alaska (DXing from the Philippines), and Jack Linonis, West Middlesex, Pennsylvania.

Thanks to each one of you. Until next month, good listening! ■

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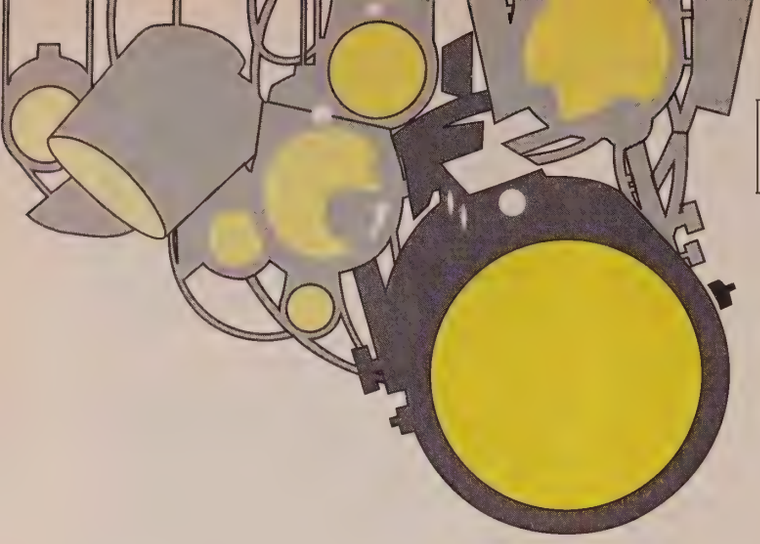

product spotlight

Pop'Comm Reviews Products Of Interest

Radio Free Awesome — The RCI-2990DX

What's that — you just upgraded to Tech Plus and now you're hot to try some DX on 10-meters? Well, you might want to take a good look at the new RCI-2990DX from Ranger Communications, Inc., the company that is famous for its line of single-band 10-meter radios.

At about 19 inches wide, 6.5 inches high, and roughly a foot deep (a bit more, if you count the rack handles), the new 2990DX is one of the largest modern ham radios I've ever seen. The matte black finish is striking, and all of the knobs are clearly labeled in white. The 2990DX covers from 24 MHz to 31.99 MHz with AM, FM, CW, and SSB modes. That means you can operate on either the 10- or 12-meter bands and receive on a fair amount of radio spectrum in between. Power output is 50 watts for AM, FM, and CW and 100 watts for SSB. The 2990 incorporates a heavy-duty power supply into its case. To operate, just plug it into 110 Vac, add coax and antenna, and you're set to go.

"Operating this rig is straightforward — just put it on the frequency you want."

The large size of the faceplate on the 2990DX gives this radio something that's a rarity in the world of ham transceivers — room between the controls. Basically, there is a knob or button for every function. That makes the 2990DX straightforward and fairly intuitive to operate. There are 11 small knobs on front of the 2990DX for various functions, and one large knob; the tuning knob. All of them are good-sized, have knurled edges, and, with the exception of the tuning knob, have a white dot on the face to indicate the position of the control.

The new Ranger RCI-2990DX.

Starting at the upper left of the 2990DX, there is a small red LED that lights when transmitting. To the right of that, there is a pair of meters. The one on the left indicates either modulation on transmit or received signal strength. The one on the right shows either transmit power or SWR. Still further to the right is a backlit green liquid crystal display that serves as information central for the 2990DX. It displays frequency, tuning step, and a variety of indicators for functions, such as noise blanker, automatic noise limiter, and so forth. In the upper right corner of the front panel is a front-firing speaker.

Midway up the left side of the front panel is a rectangular pushbutton for power. Next to that is a knob for varying transmit power. Then, a pair of knobs: one for turning on an echo effect for transmit and another for adjusting the timing of that echo effect. Under the LCD, there are two rows of seven buttons. The NB/ANL switch activates the noise blanker and automatic noise limiter. The R.BEEP button activates a Roger Beep function. SPLIT enables different transmitter and receive frequencies for FM repeater operation. PRG is use to program operating or scanning frequencies. MAN returns the transceiver to manual mode. SHF is used to select 100 Hz, 1 kHz, 10 kHz, 100 kHz, or 1 MHz tuning steps.

DIM adjusts display backlighting in four steps. SWR is used to check SWR. SCAN used to scan frequencies in each band segment. MEM is used to program memory channels. ENT enters frequencies into memory, and LOCK locks the transceiver on a selected frequency. Finally, a pair of UP and DOWN buttons are used to change frequency.

At the lower left corner of the 2990DX

BY JOCK ELLIOTT, KB2GOM

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faceplate, there is a microphone connector. The supplied hand microphone has up and down buttons for changing frequency by whatever step has been selected. The knob next to it is used to calibrate the SWR measurement function. To the right of that is a knob for adjusting receiver tone, then a TALKBACK control which, when activated, allows monitoring of transmitted audio. Next, there is a pair of concentric knobs. The outer ring controls RF gain, while the inner knob adjusts microphone gain. Dead center in the bottom of the front panel is the tuning knob, followed by a clarifier for making small adjustments in frequency, a squelch knob, volume knob, and a rotary switch for selecting operating mode. At the far right, below the speaker, is a jack for plugging in earphones.

On the back panel of the 2990DX are connectors for antenna, record output, PA, external speaker, CW key, and, of all things, an external frequency counter.

Straightforward Operation!

Operating this rig is straightforward — just put it on the frequency you want, select the mode of choice, and go to work. My very first contact on 10 meters was with Florida, some 1,500 miles away. I got fine signal reports from the folks there, and they sounded good to me. Several operators complemented me on the quality of the transmitted audio. I was particularly impressed by the audio on receive. It sounded very smooth, and for long-term operation I liked it better — in fact, much better — than some high-performance ham rigs at four times the price.

To be sure, if you have your heart and soul set on a rig built for contesting, designed for battling it out shoulder-to-shoulder with powerful stations nearby, there are other, far more expensive rigs that will perform better under the worst possible band conditions. But for the average ham who wants to ragchew over long distances, the RCI-2990DX offers extraordinarily pleasant two-band performance at a bargain price.

Suggested retail is $795, with street prices likely to be on the sunny side of $650. When you consider how much fun this rig is to operate and that you also save the expense of a separate external power supply, for my money, the RCI-2990DX ought to be in the Great Deal Hall of Fame. For more information, contact Ranger Communications at 800-446-5778, and tell them you read about it in *Pop'Comm.* ■

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The Eavescroppers™ now includes our new Zap Trapper™ Electronic Gas Tube Lightning Arrestors. Receive-only design shunts damaging transients to ground at only 1/7th the voltage buildup of the available 200 watt transmit-type arrestors, providing maximum solid state receiver protection.

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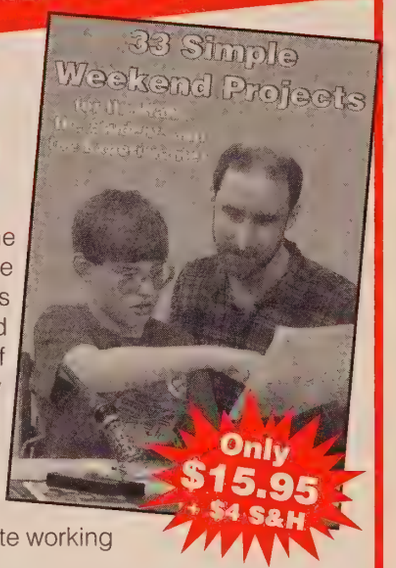

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"33 Simple Weekend Projects for the Ham, the Student, and the Experimenter" gives only a hint at the fun and satisfaction to be found between the covers of this little book. Dave Ingram, K4TWJ, has pulled together a wide ranging collection of do-it-yourself electronics projects from the most basic to the fairly sophisticated, and even touching on the frivolous.

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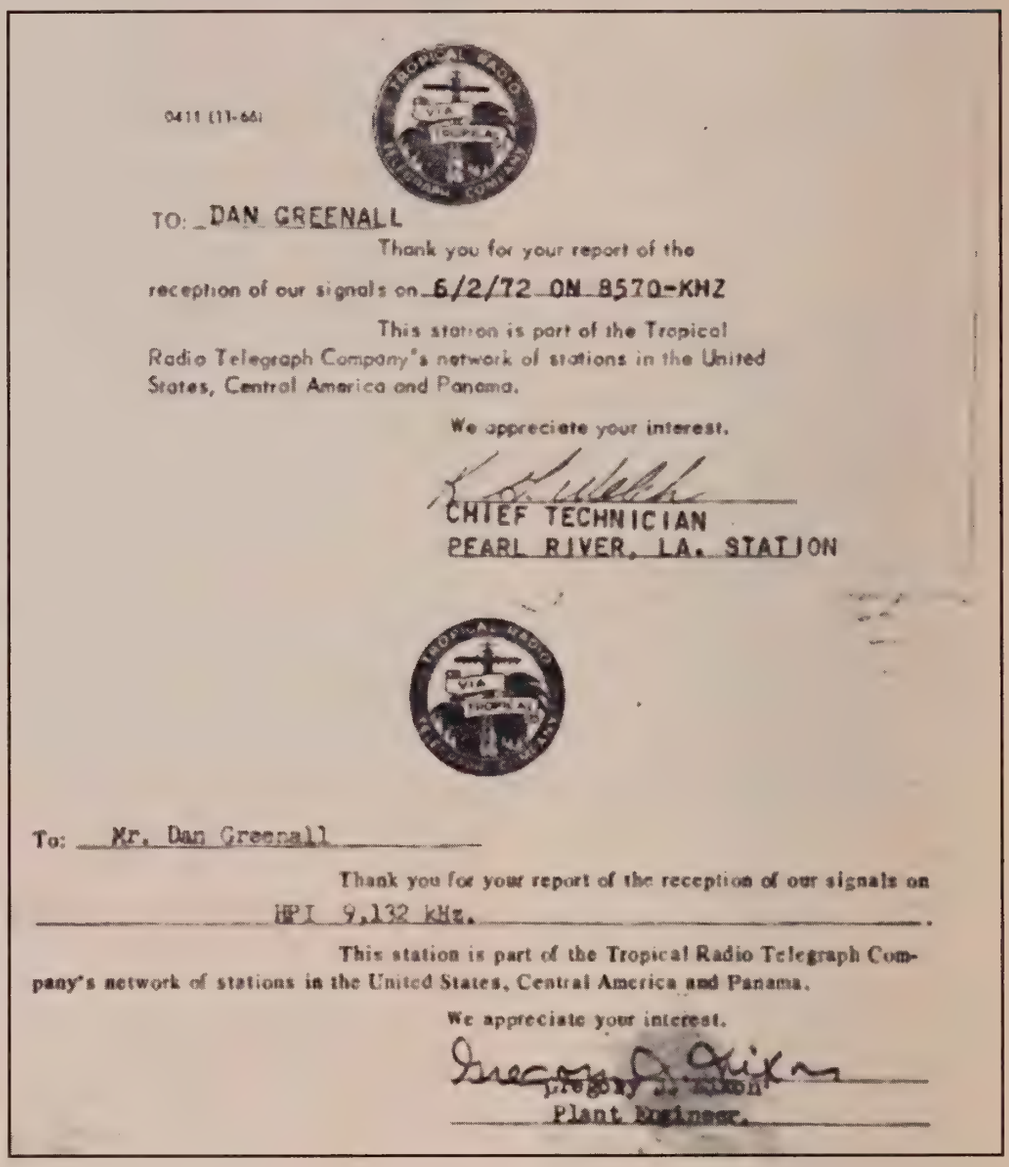
Your Guide To Shortwave "Utility" Stations

End Of An Era — The Beginning Of The Future

Last month, we discussed the imminent demise of the Globe Wireless CW network. As scheduled on July 12, 1999, stations **WCC**, **KPH**, **WNU**, and **KFS** each transmitted their last CW broadcast. Each station transmitted its own sign-off with **KFS** being the last to transmit. The final CW text from station **KFS** was sent as follows: "This is the final CW transmission from station KFS — the last commercial radiotelegraph station in North America. Appropriately, we close CW and embark on a new era of communication with Samuel F.B. Morse's own words of 155 years ago = NW CL 73 = What hath God wrought = de KFS SK."



0411 (11-66)

TO: DAN GREENALL

Thank you for your report of the reception of our signals on 6/2/72 ON 8570-KHZ

This station is part of the Tropical Radio Telegraph Company's network of stations in the United States, Central America and Panama.

We appreciate your interest.

CHIEF TECHNICIAN
PEARL RIVER, LA. STATION

To: Mr. Dan Greenall

Thank you for your report of the reception of our signals on HPI 9,132 kHz.

This station is part of the Tropical Radio Telegraph Company's network of stations in the United States, Central America and Panama.

We appreciate your interest.

Plant Engineer.

QSLs from the collection of Dan Greenall, Canada, circa 1972 for two of the former Tropical Radio Telegraph Company stations. That's WNU (later known as Slidell Radio, Louisiana, USA) on the top, and HPI (later becoming HPP), Panama on the bottom.

Digital News

The "MidAtlanticDXer" checks in from Maryland with some digital news. He reports that Pin Oak Digital (former c/s: **WHW462**) has been assigned a new callsign to support its worldwide wireless E-mail/Internet service. Effective late in 1998, Pin Oak Digital was assigned the callsign **WPC** for use from its Gladstone, New Jersey, transmission site. The callsign **WPC** was previously assigned to Bethlehem Steel. Having received licensing as a Common Carrier by the FCC on December 30, 1998, Pin Oak Digital has received 27 new frequencies to replace its former 22 temporary frequencies. The frequencies assigned to **WPC** are as follows (all in kHz): **2651.4, 3165.5, 3175.5 3245.5, 3345.5, 4455.5, 4551.4 4555.5, 4765.5, 5150.5, 5355.5, 5851.4, 5910.5, 6855.5, 7565.5, 7665.5, 7951.4, 8025.5, 10965.5, 11065.5, 13420.5, 13560.5, 13965.5, 18270.7, 18370.5, 20045.5, and 23150.** Pin Oak Digital broadcasts using its own patented signal known as "PODLINK F."

John Doe checks in from the UK with the following information regarding the appearance of a COMSUBLANT (Commander, Submarine Forces Atlantic) radio-teletype broadcast at the end of July. Having appeared on **12714 kHz, 12227.5 kHz, and 4486 kHz**, this broadcast is being run to support, among other units, the Brazilian submarine *Tamoio*. The following press summary was copied on the 12-MHz frequencies: "1. COMSUBLANT welcomes Brazilian submarine *Tamoio* to our operational control. We stand ready to provide any assistance desired while you are at sea or in port." The COMSUBLANT broadcast was running AFRTS news and sports and NAVLANTMETOCEN (Navy Atlantic Meteorological Observation Center) weather forecasts with a few operational messages noted as of the writing of this column. The *Tamoio* is participating in exercise "Shamoo Hunt '99" with a portion of the U.S. Atlantic Fleet. The exercise is taking place off of Puerto Rico. On August 3, 1999, the "MidAtlanticDXer" copied a long list of NATO routing indicators for a variety of U.S. Navy ships. Among the indicators copied were the following: RHBBZHN: USNS Mount Baker, RHBCKVY: USNS Indomitable, RHBCTSG: *USS Thomas S. Gates*, RHBDNJB: *USS Barry*, RHOAJAM:

BY RICHARD "RD" BAKER <CommConf@concentric.net> and MIKE FINK <mikef@apk.net>

USS John A. Moore, RHOCFAB: *USNS Invincible*, RHRAJLN: *USS John Lenthal*, RHRCHWR: USCGC Midgett, RHRCSTE: *USS Stethem*, RUCOACJ: *USS Estocin*, RUCOWCA: *USCGC Seneca*, RUCTFOA: *USCGC Thetis*, RUFRBEA: *USS Emory S. Land*, and RUWHIUE: *USS Devastator*.

Other News

The Israeli Navy has received the first of three new German-built submarines. The Dolphin-class submarines are among the most advanced conventional submarines in the world. The second of the three is due to be delivered in October 1999 with the third expected in early to mid-2000.

The USCG has commissioned its newest medium-endurance cutter, the *USCG Cutter Alex Haley*. Having formerly served with the U.S. Navy as the rescue and salvage vessel *USS Edenton*, the *USCGC Alex Haley* has just completed a $20 million overhaul for the 282-foot vessel. Named for the award winning author, and USCG's first Chief Journalist, the *Alex Haley* is will be home-ported in Kodiak Alaska.

Reader Mail

Back in the August issue, we mentioned speaking at the Greater Youngstown Monitoring Association's meeting. However, Gremlins misprinted the contact E-mail address for Ron Novak. It should have been listed as RNOVAK@cboss.com. So, for any of you who may have attempted to reach Ron unsuccessfully, feel free to try the correct address. Sorry, Ron!

Long-time contributor Tom Sevart also checks-in this month with some information of interest to those of you who follow Numbers Stations. Tom reports he has created a forum on Delphi called the Spy Numbers Discussion Forum. It can be found at: <http://www.delphi.com/spynumbers>. The forum is a place for anyone interested in numbers stations and intelligence-related material that has to do with radio.

Please continue to use RD's direct mail address for logs and info at P.O. Box 4450, Youngstown, Ohio, 44515, USA or send them direct to Mike or myself at the E-mail addresses in the column's header. Please make sure your full name and monitoring location is listed each time. We get a lot of mail here for the column and that saves a bunch of time. If you're a first-time contributor, we like to share what equipment you use with our readers. Now, on with the show.

UTE Loggings SSB/CW/DIGITAL

208: BDQ Morrilton, AR at 0114. (BF-NM)
216: LRG Lincoln, ME at 0350. (BF-NM)
251: PRO Perry, IA at 0400. (BF-NM)
257: PEA Pella, IA at 0414. (BF-NM)
260: OLZ Oelwein, IA at 0414. SUW Superior, WI at 0300. (BF-NM)
284: OXV Knoxville, IA at 0410. (BF-NM)
290: TVK Centerville, IA at 0412. (BF-NM)
293: IKV Ankeny, IA at 0445. (BF-NM) NDB FK at 2136. (CH-KY)
296: HBZ Heber Springs, AR monitored at 0425. (BF-NM)
302: EAG Eagle Grove, IA at 0417. CWS Conway, AR at 0232. (BF-NM)
331: NDB CK at 2146. (CH-KY)
335: CNC Chariton, IA at 0402. COQ Colquet, MN at 0301. (BF-NM)
338: VTI Vinton, IA at 0418. (BF-NM)
341: FO Ft. Dodge, IA at 0419. (BF-NM)
344: DS Des Moines, IA at 0418. (BF-NM)
350: DNS Dension, IA at 0419. (BF-NM)
353: LI Little Rock, AR at 0430. (BF-NM)
360: IFA Iowa Falls, IA at 0300. (BF-NM)
365: AA Fargo, ND at 0151. (BF-NM)
368: IFA Iowa Falls, IA at 0419. (BF-NM)
371: TZT Belle Plaines, IA at 0424. (BF-NM)
375: CHT Chillicothe, MO at 0433. (BF-NM)
378: AP Active Pass, Canada monitored at 0144. (BF-NM)
379: UNE Creston, IA at 0327. DL Duluth, MN at 0304. RUE Russellville, AR at 0108. (BF-NM)
386: BXA heard loud and clear, recorded, not identified at 0447. (BF-NM)
391: EFW Jefferson, IA at 0425. (BF-NM)
397: CIN Carroll, IA at 0427. (BF-NM)
400: PPI St. Paul, MN at 0149. TRX Trenton, MO at 0437. (BF-NM)
407: BNW Boone, IA at 0438. (BF-NM)
410: BA Columbus, IN at 0148. (BF-NM)
518: GPK, Portpatrick Radio, UK at 2136 w/NAVTEX msgs. GNI, Niton Radio, UK at 2141 also w/NAVTEX msgs. All in FEC. (HOOD-UK)
2182: *M/V Ontadoc* (7000 dwt ore carrier) w/USCG re: sick crewman w/appendicitis. CG helo reported there was no LZ and was going to use basket, heard 0150 to 0255 in USB. (RK-NY)
2524: VMR466, Coast Guard Hervey Bay, Australia w/daily opening broadcast at 2040 in USB. (SD-AU)
2600: BPM, Xing TS, China, hrd in AM w/clear time pips and CW ID at 1330 (TY-JP)
2670: NMB, USCG Group Charleston at 0422 in USB w/marine information broadcast. At 0233, NMN70, USCG Group Eastern Shores. (MADX-MD)
4028: Atencion Numbers Station (V2A) at 1021 in USB w/YL/SS/5F already in progress. (MADX-MD)
4101: BRAVO WHISKEY: USN at 1043 wkg JULIET, LIMA, and others. USN Net for JTFEX 99-2.(MADX-MD) At 0347, BRAVO WHISKEY wkg NOVEMBER re is RTB. JTFEX 99-2 related w/*USS John F. Kennedy* (CV-67) Carrier Battle Group and the *USS Bataan* (LHD-5) Amphibious Ready Group (ARG). (RD-OH)
4125: VJEW, *M/V Wombi* (tug) clg Sydney radio, for r/c at 0023 in USB. (SD-AU) Boris Badonov Numbers stn w/OM in EE at 0200 in AM. (RK-NY)
4235: NMF, USCG COMSTA Boston monitored at 0933 in FAX 120/576 w/strong signal. (MADX-MD)
4256: WLO, Mobile Radio at 1104 in FEC w/tfc list. (MADX-MD)
4271: CFH, CANFORCE Halifax at 0928 in RTTY 75/700 w/meteo tfc. (MADX-MD)
4316: NMG, USCG New Orleans, LA remoted from CAMSLANT, simulcasting Maritime Info BC from CAMSLANT on New Orleans transmitters, also on 8502 and 12788 at 0505. NMG mar info BC (USCG New Orleans, LA remoted from CAMSLANT), simulcasts heard on 8502 and 12788 at 0505. (JK-NY)
4322.1: GYA, Royal Navy, London at 0101 in RTTY 75/340 CARB on ch. 3 of 4-channel VFT at 0221. MGJ, Royal Navy Faslane in RTTY 75/340 CARB on same. (MADX-MD)
4441: SAM 973 and SAM 29000 in USB w/comms at 0248. (JM-KY)
4463: FTJ, Mossad, Israel, hrd in USB at 1800. (TY-JP)
4567: MKK, RAF Bampton, UK in Piccolo w/two channels, wkg unid stn at 1835. (JD-UK)
4703: North Korean YL nbrs hrd in AM at 1200, also same nbrs hrd on usual 4770 kHz, causing bad QRM w/3000 kHz beat each other // 5869. First time I've hrd North Korean nbrs on 4703 and 5869kHz. Used to be 5872 kHz. (TY-JP)
4950: VL2KJ, N.S.W. Ambulance Service w/selcal and voice call for CAR 5 w/no joy at 2329 in USB. (SD-AU)
5001.5: Unid at 0030 in CLOVER-II 8-tone PSK(QPSK?) signal. (MADX-MD)
5170: C102, Mossad, Israel, hrd in USB at 1945. (TY-JP)
5374.5: FDG, French AF, Bordeaux, France in RTTY 50/850 test tape at 1902. (JD-UK)
5422: Lincolnshire Poacher nbrs, British M16, Cyprus, in USB at 1800 // 6485// 8464. (TY-JP)
5423.5: VLR, Longreach School of The Air, AUS w/YL commencing lesson w/ann at 2232 in USB. (SD-AU)
5435: ART2 Mossad, Israel, hrd in USB at 1800. (TY-JP)
5629: KPA2 Mossad, Israel, hrd in USB at 1715. (TY-JP)
5693: French mil at 2220 in USB exchanging details regarding launch chronology. First launch at 2224 on the 26th w/next launch scheduled for 2300. Callsign BISCAYE was mentioned. (PP-FR)
5696: RESCUE 6006 secures guard w/CAMSLANT at 0335. RESCUE 1503 est. guard w/CAMSLANT for an ELT hunt at 0336. (JK-NY) Culdrose Ops, UK, asking J0M to can-

Abbreviations Used For Intercepts

ABT	About
AM	Amplitude Modulation mode
BC	Broadcast
Clg	Calling
CW	Morse Code mode
EE	English
FF	French
GG	German
ID	Identification/Ied/location
LSB	Lower Sideband mode
MIB	Marine Info Broadcast
OM	Male operator
PP	Portuguese
pp	Phone Patch
Posn	Position
RR	Russian
SS	Spanish
tfc	Traffic
USB	Upper Sideband mode
wkg	Working as in "Talking to"
w/	With
wx	Weather report/forecast
YL	Female operator
4F	4-figure coded groups (i.e. 5739)
5F	5-figure coded groups
5L	5-letter coded groups (i.e. IGRXJ)

cel their HDS?, due to wx at Culdrose. (PP-FR) CAMSLANT w/pos rep from helos 3001, 3002, 3003 at 0100. (RK-NY) All in USB.

5713: French mil at 2050 in USB w/UI and ZZM. (PP-FR)

5717: Trenton Military at 0202 in USB w/Canadian Rescue 314 (CC-130E, Greenwood) w/resolution of EPIRB sig and adv 314 to continue on to St. Johns as scheduled. (RP-MD)

5834.5: FDY, Fr AF Orleans, France in RTTY 50/400 w/usual test tape at 1800. (JD-UK)

5841: 32 CHARLIE (probable H-60, Clearwater) at 0032 in USB w/Panther (DEA, Bahamas) passing encoded pos report and ops normal. (RP-MD)

5848.5: F4C (ncs) clg WUE6, USA COE, Nashville, TN, I5G, K4H, L6B, I1X, I1T, X7W, F5V, Z7E, I1P, D5I, D1S, D8U, S3Q, Z8F, Z8G, P2N, and P7S at 1332 closed the net at 1400. (JM-KY)

5860.5: FDI22, French AF, Narbonne, France in RTTY 50/400 test tape at 1935. (JD-UK)

5928: VL2HF, N.S.W. National Parks and Wildlife Service net at 2252 in USB w/3201 wkg unid re the unit enrt to the location is unable to engage four-wheel drive. (SD-AU)

6215: VJEW, *M/V Wombi* (tug) clg Sydney Radio for r/c then advises they will QSY to 4125 at 0022 in USB. (SD-AU)

6224: USN Bravo Whiskey net for JTFEX 99-2 exercise, *USS John F. Kennedy* and battle group, offshore South Carolina/Georgia area, heard later to qsy to 4101.0 at 2130. (JK-NY)

6224: FIGHTING TIGER 11 (most likely a P-3C of VP-8 "Tigers," NAS Brunswick, Maine) clg BRAVO FOXTROT at 0334 in USB req they enter and activate his Papa Uniform (PU or Participating Unit) at this time. BF req the 11 NUCO his PU, 11 adv NNKY, BF reads back to confirm and adv they will enter him. At 0339, "Tug *Endeavor*" wkg another Tug after "ringer" re ETA to seabuoy after taking on fuel and water. All in the midst of battlegroup comms as 6224 is a maritime simplex freq. Battlegroup c/s "CHARLIE" has no idea what that was about JTFEX 99-2 related with *USS John F. Kennedy* (CV-67) Carrier Battle Group and the *USS Bataan* (LHD-5) Amphibious Ready Group (ARG). (RD-OH)

6286.5: UFFE, TKH Seatamar monitored at 0639 in CW w/ETA for Vlissingen via UCW4. (HOOD-UK).

6337: CBV, Valparaiso Radio at 0600 in CW w/ID marker. (HOOD-UK)

6348: FUE, Brest Naval in RTTY 150Bd test tape at 1807. (HOOD-UK)

6362.1: GYA, Royal Navy London at 0057 in RTTY 75/340 CARB on ch. 3 of 4-channel VFT. At 0216, MGJ, Royal Navy Faslane in RTTY 75/340 CARB on same. (MADX-MD)

6370: SYN2, Mossad, Israel hrd in USB at 1745. (TY-JP)

6380: UCW4, St. Petersburg Radio at 0605 in CW w/msgs to the UCVL,TKH Sormovskiy 3057. UIYD TKH Sormovskiy 3064 and UCGU TKH Volgo-Balt 122. (HOOD-UK)

6389: CTP, NATO Lisbon at 0445 in RTTY 75/800 w/freq status. (MADX-MD)

6400: UON, Baku Radio at 1800 in CW w/tfc list and currency exchange info for the 4JDS, Gezenfer Musabeyov and 4JJB, Mercury 1. (HOOD-UK)

6498: PCD, Mossad, Israel, hrd in USB at 1730. (TY-JP)

6507: TBDJ, Turkish Navy, Istanbul, Turkey, w/V mkr and CW id at 2015. (TY-JP)

6645: The Eastern Music nbrs, ENIGMA code V8, hrd in AM at 1815. The carrier was on at 1800, characteristic Arabic-style instrumental music started at 1815 for one min., then into YL/Arabic nbrs ended w/similar music for 10 sec at 1825. Sounded like a usual Arabic BC. Jammer and clandestine were busy on the some freq but pretty good signal w/low modulation. First time ever encounter w/V8, able to confirm using the "Conet Project CD." (TY-JP)

6715: Offutt w/pp for a REACH flight at 1436 in USB. (JM-KY)

6739: OMNI 23, on ground at LAX clg Hickam then McClellan, no joy at 0730. (JK-NY)

6754: Trenton Military at 0622 w/ Volmet for Canada. (SD-AU) Volmet Stn w/wx for airports in Canada at 0222. (CH-KY) All in USB

6790: Unid.w/Aust. drilling comms MOBILE 6 discussing work and agreeing to sked at 0730 tomorrow in USB at 0729. (SD-AU)

6815.6: H6K wkg GANTSEC on USCG Secure 3E11 at 2238. GANTSEC wkg CG 1719 at 2239 again at 2254. (JK-NY) GANTSEC (USCG Greater Antilles Section, Puerto Rico) at 0237 w/aircraft G8W relaying information of vessel heard hailing in SS. G8W req to maintain sharp lookout. (RP-MD) All in USB.

6837: FDG, French AF Bordeaux in RTTY 50/850 w/test tape at 1025. (JD-UK)

6846: Unid U.S. mil w/(sounds like) STORM broadcasting serials using letters and figures in USB at 0733. (SD-AU)

6959: Lincolnshire Poacher nbrs, British M16, Cyprus, hrd in USB at 2100, w/heavy QRM from China R. International (6960 kHz) // 9251 // 11545. (TY-JP)

6960: VHN85, unid stn, in USB wkg 2QLM w/chit chat about Lightning Ridge, Qld at 0648. (SD-AU)

6961.2: NMC1, USCG CAMSPAC at 0426 in GTOR 100/200 clg NRPX, USCGC Buttonwood WLB-306, and NLPM, USCGC Chase WHEC-718. (MADX-MD)

7057.5: Unid stn L9CC Rptng "V CP1 7 DE L9CC" over and over in CW at 1957.(TY-JP)

7330: VL2SES, New England N.S.W. State Emergency Services, AUS, wkg Dubbo Forensic 120 (N.S.W. Police), who adv he was 10 km north of Gilgandra and called for a r/c when he stumbled across morning net check while on scan mode, starting a flurry of conversation between him, New England, Rural Fire Service COBAR and MOREE 73 at 2325 in USB. (SD-AU)

7365: VL2HF w/N.S.W. National Parks and Wildlife Service net, AUS w/31 and 3543 discussing fencing, as well as conditions at Lightning Ridge at 0001 in USB. (SD-AU)

7475: VLT School of Distance Edu., Charters Towers, AUS w/YL conducting lesson in USB at 2250. (SD-AU)

7480: Female Op w/5 fig. grps in SS in AM at 2209–2213. (CH-KY)

7535: 938, unid USN (?) unit at 1137 in USB wkg 939, also unid USN (?) unit. At 1140, 938 wkg NORFOLK SESEF. Testing xmtr in all modes. Good RYs received from 938 in RTTY 75/850. Unit seemed unfamiliar w/SESEF procedures. Also at 1309, HAYLER TECH CONTROL, *USS Hayler* DD-997 wkg SESEF Norfolk re checking equipment for pre-install inspection. (MADX-MD)

7538.6: Unid Australian sword fishermen complaining about lack of fish in USB at 0655. (SD-AU)

7555: Female Op w/5 fig. grps in SS in AM, heavy QRM from KJES monitored at 0303–0345. (CH-KY)

7602: FDI22, Fr AF Narbonne, France in RTTY 50/400 w/8-bit Baudot test tape at 1745. (JD-UK)

7635: ALE heard at 1329 in USB w/Civil Air Patrol frequency, do they have ALE capability? (JM-KY)

7671.5: FDG, French AF Bordeaux monitored in RTTY 50/850 w/test tape (8-bit Baudot) at 2125. (JD-UK)

7800: VKA, Mount Gambier, South Australian Police Service comms w/OSCAR 205 testing selcal in USB at 2255. (SD-AU)

7974: Unid possible Asian military w/some comms in EE at 1021 in USB. (SD-AU)

8032: Andrews and SAM 202 in USB at 1506. (JM-KY)

8093: NGB24, National Guard, Springfield, IL clg NGB33 and NGB46 at 1405 in USB. (JM-KY)

8279: UFUD, TKH Volga 4006 at 0720 in USB wkg OHG for pp to Spain. (HOOD-UK)

8341.5: 7THS, *M/V Nedroma* monitored at 0730 in CW w/msg via 7TF (26593 dwt bulker) (HOOD-UK)

8342.7: THT, *M/V Nememcha* at 0702 in CW

Terms Used In This Month's Column

ALE — Automatic Link Establishment
ANDVT — Advanced Narrowband Digital Voice Terminal, secure voice system
ATC — Air Traffic Control
CARB — Channel Availability and Readability Broadcast
CAMSLANT — Communications Area Master Station Atlantic
CAMSPAC — Communications Area Master Station Pacific
CommSta — Communications Station
COMSUBLANT — Commander, Submarine Forces Atlantic
EAM — Emergency Action Message
EOC — Emergency Operations Center
EPIRB — Emergency Position Indicator Radio Beacon
JTFEX — Joint Fleet Exercise
Lima Charlie — Loud and Clear
LZ — Landing Zone
NDB — Non-Directional Beacon
NUCO — NATO Uniform Code
Pax — Passengers
PIREP — Pilot's Report
RTB — Returning To Base
SESEF — Shipboard Electronic Systems Evaluations Facility
Volmet — French word for "Flying Weather"

w/eta for Ancona via IAR. (26145 dwt bulker) (HOOD-UK)
8344.5: UIAP, TKH Ishim at 0653 in CW w/eta for Kaliningrad to UHP5. (ex ULDF) (HOOD-UK)
8357.5: EMKN, TKH Geroi Tripolya at 0706 in CW w/msgs in EE to Italy via UWS3. (HOOD-UK)
8366.5: URJJ, TKH Moldaviya at 0710 in CW clg USO5 for QTC. (HOOD-UK)
8381.5: 9ANN, *M/V Peljesac* (71,229 dwt freighter) at 0511 in ARQ wkg Rijeka Radio. Again at 0520 with "2780 27839 PELJ X." 2780 is Riejka Radio's selcal. (MADX-MD)
8401.5: ELRA3, TR Starlette 1 monitored at 0639 in RTTY 50/170 w/crew TGs to UIW. (HOOD-UK)
8402.5: UBHN, BATM Lazurnyy (KA-6127) at 0725 w/msg to Torshavn via UIW. UAUJ, BATM Porfiriy Chanchibadze at 0728 admin from KM Markov to UIW. UIMQ BATM Armenak Babayev (KA-0599) at 0647 w/ msg to Torshavn via UIW. All in RTTY 50/170 (HOOD-UK)
8404: UUUZ, TKH Tanya Karpinskaya at 0742 in RTTY 50/170 msg to Odessa via USO5. (HOOD-UK)
8414.5: Various stns at 0426 in GMDSS 100/170 eight packets in 45 mins, with the following MMSI: 368591000 *M/V President Polk* (WRYD), 249244000 *M/V Gloria Deo (9HON4) (MADX-MD)*
8434: TAH, Istanbul Radio at 0116 in CW w/call and ARQ free idle. (MADX-MD)
8439: PBC, Dutch Navy Goeree Island at 0052 in RTTY 75/791 w/CARB. (MADX-MD)
8450: RUF9, Temryuk Radio at 0813 in CW wkg the UBKZ, TKH Peleduy (2795dwt sea-river vsl) (HOOD-UK)
8451: UBF2, St. Petersburg Radio at 0704 in CW w/tfc list. (HOOD-UK)
8453: RFFME, French Navy Paris at 0041 in RTTY 75/791 w/test tape (MADX-MD)
8500: UON, Baku Radio at 1824 in CW w/msgs to 4JFW TKH Huseyn Javid, 4JIF TKH Reshid Bejbutov and 4JGA TK Shamakhy. (HOOD-UK)
8557: SPB, Szczecin Radio at 0108 in CW w/call and ARQ free idle. (MADX-MD)
8571: UFN, Novorossiysk Radio at 0710 in CW w/id (HOOD-UK). Also at 0320. (MADX-MD)
8620: USU, Mariupol Radio at 0101 in CW w/calltape. (MADX-MD)
8625: FUM, French Navy Papeete at 1107 in RTTY 75/761 w/call tape. (MADX-MD)
8636: Female Op in AM w/attension, 3# 2# grps/5 fig grps in SS 0359–0447. (CH-KY)
8642.1: GYA, Royal Navy, London at 0054 in RTTY 75/340 CARB on ch. 3 of 4-channel VFT. At 0214, MGJ, Royal Navy Faslane in RTTY 75/340 CARB on same. (MADX-MD)
8722: CUL, Lisbon Radio at 2157 wkg unid vsl for pp. 7TA3 Boufarik Radio at 1605 w/wx in FF and tfc list. All in USB. (HOOD-UK)
8740: OXZ, Lyngby Radio at 0722 wkg UIXQ, TKH Baltiyskiy 21 and UFUD, TKH Volga 4006 for pp. YQI, Constanza Radio at 0630 w/id and listening on ch 808. All in USB. (HOOD-UK)
8764: NMC, USCG CAMSPAC Pt. Reyes, CA w/maritime info BC "Perfect Paul" synth w/OM at 0452. NMN, USCG CAMSLANT Portsmouth, VA followed at 0500. (JK-NY) UIW: Kaliningrad Radio at 0750 in w/id. (HOOD-UK) All in USB.
8837: Tel Aviv Radio wkg an El Al flt at 2025 in USB. (PP-FR)
8891: Bodo Radio at 1123 in USB clg Iceland Radio for r/c, no joy, then QSL to 11279 for contact. (HOOD-UK)
8906: N.Y. Radio wkg various a/c in USB and selcal at 8906. (JK-NY)
8912: Unid at 1926 in HFDL (HF ACARS) 1800bd. (MADX-MD)
8933: LDOC Collins Radio, Cedar Rapids at 0244 in USB w/aircraft. (RP-MD)
8942: Singapore 11 at 1610 in USB wkg Singapore Radio for psn rpt. (HOOD-UK).
8974: Singapore Air Force 6128 clg Air Force Sydney req airborne time for fighter flight departing Amberley at 2311. BUCKSHOT 19 (RAAF F-111) clg Air Force Sydney at 0620, advising departure from Williamtown and req them to contact ATC and advise eta to Amberley at 0700. Taipan 61 at 0515 clg Air Force Auckland w/no joy and advised by Air Force Sydney to QSY to 11235. (SD-AU) Sydney Radio, AUS w/Air Force Sydney clg AUSSIE 166 at 0227. (EW-AU) All in USB.
8976: ROMEO DELTA 805 at 2120 in USB clg Air Force Sydney w/no joy. (SD-AU)
8983: RESCUE 2104 working Miami Air at 2051 in USB (JK-NY)
8992: Y5G pp via Hickam to NCCS Guam re: traffic status, lengthy pp, subsequently another pp to NCCS PAC (also referred to as Yankee CAMSPAC) re: apparent difficulties w/comms equipment. Comms were apparently est. on EHF w/NCCS PAC and pp terminated at 0710. (JK-NY) SHARK 91 clg HICKAM for another attempt at 1214 to SMASHER followed by SHARK 91 advising ETA 1255 and req load info which SMASHER was unable to give as load had not arrived followed by SHARK 91 advising he has no pax or cargo and SMASHER advising him to contact later on 121.8. All in USB. (SD-AU) *(In checking, this was probably "NCTS" — Naval Computer and Telecommunications Station, which is the proper title for the Guam Comm Station, while the NCTS PAC would officially be known as Naval Computer and Telecommunications Area Master Station — Pacific, there in Hawaii, nice catch — Ed.)*
8997: UNCLOUDED clg JUNGLE 805 w/ no joy in plain and ANDVT at 1206 another attempt w/no joy at 1135. UNCLOUDED clg JUNGLE 807 advising his unit has him Lima Charlie in the green at 2040. UNCLOUDED clg JUNGLE 808 w/ ANDVT bursts followed

by a req for verification of receipt of traffic and JUNGLE 808 advising his on deck time as on the hour at 1156. (SD-AU) Christchurch Control, NZL clg unid at 1104. (EW-AU) All in USB.

8998: SHAMU 11 clg Auckland at 2242 req wx for McMurdo. Auckland advises that primary freq is 8998 and secondary 8867, a/c also advised that t/o was at 2200. POLAR 99 clg Auckland w/pos report, pirep and ops nml msg at 2300. POLAR 99 clg Auckland req block altitude FL350- FL390 which is acknowledged by Mac Center followed by Auckland at 2325. Auckland clg SHAMU 11 at 2327 req estimate for 60 degrees south, which was given as 0046. All in USB. (SD-AU)

9007: WALLABY 62 w/pp at 2258 in USB w/connectivity check to WALLABY OPS via Air Force Townsville. (SD-AU)

9010: ARCHITECT w/Volmet wx for various locations at 0648 in USB. (SD-AU)

9016: WILDCAT CONTROL wkg ZEALOT, VOODOO, MAUL, WARBLADE, GRIFTER and MAXIMUS in EE at 0125 in USB. Possible Tornado fighters over Kosovo. (RK-NY) PERFORATE clg FISHERMAN at 0636 in USB req secure comms and advised that secure comms will take a few minutes followed by bursts of ANDVT then request from FISHERMAN to QSY to Z190. (SD-AU) All in USB.

9045: 5YE, Nairobi Meteo at 2345 in FAX 120/576 w/weak signal, moderate fading. (MADX-MD)

9120: IRON GRIP w/arrival/departure times for Andrews AFB in USB at 1308. (JM-KY)

9121: DLA297, Defense Logistics Agency, Philadelphia, PA, in USB after ALE at 1213 UTC. Must have been a new operator, closed w/"This is DLA297 out, over." USB ALE going at the same time on 9114, 9120, and 9122.5. (JM-KY)

9122.5: WUG5, USA COE, St. Louis, MO, in USB at 1356 after ALE. (JM-NY) WUG, USACE Vicksburg at 1515 in USB wkg WUG5, USACE St. Louis, WUE, USACE Cincinnati, WUE6, USACE Hendersonville, testing ALE links. (MADX-MD)

9130: MGJ, Royal Navy Faslane at 2254 in RTTY 75/400 w/CARB. (MADX-MD)

9185: WWJ71, FHWA, Madison, WI, in USB Region 7 HF Net at 1456. (JM-KY)

9330: Numbers Station (M8) at 1207 in CW Cut 5F already in progress. (MADX-MD)

10066: Calcutta Air at 1815 in USB wkg Lufthansa 773. (HOOD-UK)

10194: WGY948, ND State EOC, Bismark and WGY908, FEMA, Denver, CO, running various pp tests in USB at 1520. (JM-KY)

10204: PERFORATE clg FISHERMAN at 0642 followed by ANDVT bursts. PERFORATE calls MAGNAVOX w/no joy. Then PERFORATE req FISHERMAN contact MAGNAVOX after attempts to do so on Z175, and to advise him to contact on this or the other circuit. After repeated attempts on this frequency, FISHERMAN broadcasting EAM at 0706. All in USB. (SD-AU)

10215: HZN, Jeddah Meteo at 2358 in RTTY 100/840 w/meteo tfc. (MADX-MD)

10285: Unid in 48 baud ARQ-E idling at 2100 till after 2200. (JD-UK)

10493: TANK CAR w/pp req through WGY908, FEMA, Denver, CO, at 1730. AAR4SX, USA MARS, clg WGY902, 904, or 914 at 1733 in USB. (JM-KY)

10522: RFLI, French Forces Fort de France at 0305 in ARQ-E3 192/315 w/CdV msgs on ckt "LIJ." (MADX-MD)

10560: RHV42, presumably Russian warship (?), clg RIW unsuccessfully in CW at 1925. (JD-UK)

10648: YHF, Mossad, Israel, hrd in AM at 1600 // 7918kHz. (TY-JP)

10780: RAZOR 01, E-8C, Robins AFB 93ACW, at 2021. Cape Radio w/pp to DSN#497-2612 (Robins Raymond 19 CP), w/format line 10 and 11 info. RAZOR 01 designation for E-8C means that 93ACW Cmdr is aboard. (JM-KY) Charlie Juliet 630 (CH-53, MCAS New River NC) at 1930 in r/c w/Cape Radio. (Poss related to STS-93 launch) (RP-MD) All in USB.

10820: VLB2 Mossad, Israel, hrd in USB at 2245 // 12747 // 14750. (TY-JP)

10960.7: RFFP, Paris, FRN at 0621 in ARQ-M2 200/300 w/idling only. (EW-AU)

10963: HBD20, Berne Radio, SWI at 0817 in ARQ w/encr msgs. (EW-AU)

10970: MIW2, Mossad, Israel, hrd in USB at 2215 // 13921. (TY-JP)

10971: HBD20, Berne Radio, SWI at 0818 in ARQ W/5L grps. (EW-AU)

11000: RIW, Moscow TSS, URS at 0733 in CW. (EW-AU)

11015: VJN, Cairns Radio, AUS at 2322 in USB w/school of the air. (EW-AU)

11110.5: RFLI, FF Fort De Fr, MRT at 1140 in ARQ-E3 192/425 w/idling only. (EW-AU)

11117.3: RFHHHC, Hao, OCE at 0807 w/idling only. (EW-AU)

11175: EVAC 4062 at 1008 wkg Thule, bound for Ramstein. (HOOD-UK) MAINSAIL w/for SPORT or FORCE 82 (#40192) w/pp to Mountain Home, AFB "PROTOCOL" (82 ID'd as a CAPSTONE a/c) at 2248. REACH 068 C5A, clg Mainsail at 2322 w/no joy. (RK-NY) All in USB.

11178: Papa Charlie 8 (U.S. voice) clg Mike 1 at 0232 w/no response. (RP-MD)

11212: MKL, Pitreavie Radio, SCO in CW at 2304 w/wx. (EW-AU)

11233: Croughton GHFS wkg LEVERAGE in USB sending data for training purposes after making initial contact on 11175. Apparently unsuccessful following two attempts. (JK-NY)

11235: TAIPAN 61 clg Air Force Auckland at 0516 in USB, AF also called them but was unable to hear followed by Air Force Sydney offering to forward traffic to Air Force Auckland but the offer was declined. (SD-AU)

11244: OUTBOARD up w/test count at 0243. McClellan w/6-char EAM MZNLDC simulcast on 11175 at 1741. (JK-NY)

11247: RAF Akratira at 0715 in USB w/wx for various. (PP-FR)

11253: Unid Volmet w/wx info for Brindisi and other areas at 0526. (SD-AU). MVU West Drayton, UK at 0605 w/Volmet BC. (EW-AU) RAF VOLMET at 0902 w/wx for European airfields. (HOOD-UK) All in USB.

11279: Japan Air 6422 at 1129 in USB wkg Iceland Radio for selcal check. (HOOD-UK)

11288: Jeddah Radio wkg Unid 7002 at 1645 in USB. (PP-FR)

11306: TWA901 clg Portishead Radio at 1132 in USB for selcal check, stn answered but TWA flight did not reply. (HOOD-UK)

11336: Swissair 102 wkg Gander Radio at 1236 in USB for Selcal check. (HOOD-UK)

11342: Delta 24 req selcal chk w/New York Radio at 2212 in USB.

11387: Bangkok Radio, THA w/Volmet BC at 1140. Sydney Volmet, AUS w/wx at 0701. Singapore Radio, SNG w/wx at 1048. All in USB. (EW-AU)

11396: Indonesian ATC in USB, adv a/c switch Vhf 128.1. (PP-FR) New York Radio wkg El Al 1195, UPS 1016, and Virgin 1615 w/selcal chks at 2330. (RK-NY) All in USB.

11401: U.S. stn Z8Y w/letter grps sounding like EAM at 2235 in USB. (PP-FR)

11421.7: FJY5, Crozet Isl, AMS at 0825 in ARQ-E3 96/425 w/idling only. (EW-AU)

11452.7: IMB3, Rome Radio, ITA at 0640 in RTTY 50/850 w/wx. (EW-AU)

11460: SPAR 66 rsg Andrews for short QSO at 0338. (JK-NY)

11498: At 1612, BRAVO CHARLIE up in USB wkg WHISKEY, then into ANDVT. UNIFORM at 1616 adv strike package is under UNIFORM's control, so hold all tracks in house. JTFEX 99-2 related with *USS John F. Kennedy* (CV-67) Carrier Battle Group, and the *USS Bataan* (LHD-5) Amphibious Ready Group (ARG). (RD-OH)

11551.6: FJY4, St. Paul Ams, Isl at 1146 in ARQ-E3 96/425 w/idling only. (EW-AU)

11629: The English Lady (E17) at 0237 in AM already in progress w/5FGs (x2). Down at 0308 at "546 (x2) 198 (x2) 00000." At 0502, E17: The English Lady in AM w/"196 (x many) 438 (x2) 95 (x2)" and into 5FGs (x2). Same msg as at 0400 on 13880. Down at 0520. (MADX-MD)

12068.5: DLA297, Defense Logistics Agency, Philadelphia, PA at 1816 in USB. (JM-KY)

12140.2: HWN, Paris Radio, FRN at 0633 in RTTY 159.3/850. (EW-AU)

12196.7: RFHJ, French Forces, Papeete at 0500 in ARQ-E3 96/383 CdV on ckt [HJL] and large 5lg msg from RFHWC to RFLIC. (MADX-MD)

12227.8: COMSUBLANT Norfolk, VA in RTTY 50/850 at 2038 w/nx and sports summary. (JM-KY)

12376.9: Unid VFT 4 tones spaced -300 -100 +100 +300 195.2 bd at 1940. Does anyone know what this is? Previously on 15793.9, 16605.9, 17223.9, and 18788.9. (JD-UK)

12445: UBBW, TKH Sibnec, at 0704 in CW clg UHP5. (2624 dwt gen cargo vsl, St. Petersburg). (HOOD-UK)

12464: RCRE, unid at 0731 in CW clg RIW for QSA report. (HOOD-UK)

12474: UGYF, TK Nefterudovoz 16 at 0728 in CW w/msg to UJE. (HOOD-UK)
12485.5: TCIT, *M/V Elgiz Cebi* at 1035 w/msg via HEC (5050 dwt gen cargo vsl) PCBF *M/V Pluto* at 0755 wkg opr at HEC. All in ARQ. (HOOD-UK)
12489: UFL, Vladivostok Radio, URS at 0736 in ARQ clg UFMK ship at sea. (EW-AU)
12495: UFJA, TK Lipetsk at 0718 in ARQ w/crew TGs to UFN (23900 dwt tanker, ex UMBR). (HOOD-UK)
12497: 9HAS4, *M/V Gastello* at 0659 in ARQ w/log on with UAT. (4168 dwt gen cargo vsl of Sakhalin Shipping Co) (HOOD-UK)
12504.3: UDAS Orlik (TSM-8337) monitored at 1514 in RTTY 50/170 w/crew TGs to UIW (HOOD-UK)
12512.5: UUMI, TKH Vasiliy Belokonenko at 0835 w/crew TGs to USU (7264 dwt gen cargo vsl). V3TJ, *M/V Holysea* at 0650 w/msg to Sfax via USU. (ex. Zakarpatye, UZLR, 24616 dwt bulker) URMA, TKH Skvortsov-Stepanov at 0723 w/msg to USU. (7428dwt gen cargo vsl) All in ARQ. (HOOD-UK)
12525.5: UTXJ, TKH Vera Khoruzhaya at 0655 w/admin from Km Fedorenko to USU (4650dwt gen cargo vsl) UYSL TKH Novocherkassk at 0747 w/msg to USU. All in ARQ. (HOOD-UK)
12538: UYTE, TKH Reutov at 0817 in CW w/psn rpt to USO5. (5657dwt gen cargo vsl, ex UEHH) (HOOD-UK).
12538.5: UTDC, TKH Ilya Selvinskiy at 1550 w/admin from Km Prilyutskiy. URAZ, TKH Valerian Zorin at 1555 w/crew TGs to USO5. All in RTTY 50/170. (HOOD-UK)
12550: J8VG3, *M/V Meganon* at 1120 in CW clg UXO w/no joy. (ex Volgo-Balt 118, UCYY) (HOOD-UK)
12557: TCKV, *M/V 30 Agustos* at 0745 in ARQ w/msg to TAH. (60589dwt bulker) (HOOD-UK)
12563.3: TCBO, *M/V Und Marmara* at 0812 in ARQ w/msg about engine repair via SAB login 29911 TCBO. (HOOD-UK)
12564.5: UEZQ, Ozherelye (TSM-8358) at 0812 in RTTY 50/170 w/crew TGs to UIW. (HOOD-UK)
12565: 9HIA5, TKH Inzhener Plavinskiy at 0714 in ARQ w/crew TGs to UCE. (7075 dwt gen cargo vsl of Northern Shipping Co.) (HOOD-UK)
12566: UUCG, TKH Persey monitored at 0642 in RTTY 50/170 w/msg from 4405N 2906E w/eta for Bosphorus, and for Thessaloniki. (HOOD-UK)
12567: UDYN, Maksim Starostin (MA-1814) at 0652 in RTTY 50/170 w/RYs to UDK2. (HOOD-UK)
12568: UAYP, Leonid Ivanov (MB-0018) at 0648 in RTTY 50/170 w/BBXX to UDK2. (HOOD-UK)
12572: UFRC, TKH Pomor at 1039 in RTTY 50/170 w/psn rpt from Km Dolgovyazov voa UDK2. (495dwt gen cargo vsl) (HOOD-UK)
12572.5: UAVT, Rybachiy (AB-0032) at 0839 w/crew TG to RKLM (1727dwt fact trawler) UAVU, Zavolzhsk (AB-0033) at 0712 w/admin fm Km Luchenko to RKLM. All in RTTY 50/170. (HOOD-UK)
12574: UCTQ, Komandarm Shcherbakov (MA-0068) at 0800 in RTTY 50/170 w/crew TGs to UDK2. (HOOD-UK)
12576: UCUD, Vasiliy Lozovskiy (MA-1823) at 0815 in RTTY 50/170 w/admin to Murmansk Tralflot via UDK2. (HOOD-UK)
12580: ZLA, Wellington Radio, NZL at 1127 in CW w/stn marker.
12584: VIP, Perth Radio, AUS at 0628 in ARQ msgs to ships. (EW-AU)
12625.5: UCE, Arkhangelsk Radio at 1803 in ARQ w/crew TG to the UCKU, TKH Fyodor Varaksin. (HOOD-UK)
12662: FUG? presumed La Regine, France, sending "FAAA de RFFME" etc. in RTTY 150/850 at 1515 on 11 July. "RFFME" has been heard on other known FUG freqs, so I assume that this one is also FUG. (JD-UK)
12678: 9MG3, Piang Radio at 1524 in CW freq info. (HOOD-UK)
12680.3: 8PO, Barbados Radio, BRB at 1010 in CW w/stn marker. (EW-AU)
12699: UUUB, RKTS Marshal Sudets at 1113 in RTTY w/50/170 msg from Km Valkovskiy to URL, way off normal freqs. (HOOD-UK)
12700: UCE, Arkhangelsk, URS at 0830 in CW w/stn marker. (EW-AU)
12701.5: CKN, Canadian Forces, Vancouver, CAN at 1019 in RTTY 75/850 w/freq listing. (EW-AU)
12710.1: XSZ, Dalian Radio, CHN at 1023 in in CW w/stn marker. (EW-AU)
12727: HLJ, Seoul Radio, KOR at 1139 in CW w/stn marker. (EW-AU) HLF Seoul Radio at 1532 w/ARQ idler. (HOOD-UK)
12728.5: PPR, Rio Radio, BRZ at 0852 in CW w/stn marker. (EW-AU)
12729: UFL, Vladivostok Radio, URS at 1013 in CW w/stn marker. (EW-AU)
12738: PPR, Rio Radio, BRZ at 1035 in CW w/stn marker. (EW-AU)
12781.5: 9MB, Malaysian Naval at 1534 in CW w/marker. (HOOD-UK)
12800: HSA3, Bangkok Radio at 1538 in CW w/marker. (HOOD-UK)
12877.5: UIW, Kaliningrad Radio at 1541 in RTTY 50/170 w/crew TG from Vladivostok for UBRG Uldanskiy. (HOOD-UK)
12921.1: GYA, Royal Navy London at 0053 in RTTY 75/340 CARB on ch. 3 of 4-channel VFT. At 0212, MGJ, Royal Navy Faslane in RTTY 75/340 CARB on same. (MADX-MD)
12965: USO5, Izmail Radio heard at 1820 in CW w/msg to the UWLS TKH Ruzhany. (HOOD-UK)
13050: UDK2, Murmansk Radio at 1548 in RTTY 50/170 w/msg to the UFOD Sergey Korshunovich (MB-0022). (HOOD-UK)
13055: UTQ, Kiev Radio at 1554 in CW w/id and QSX 8341/12436/16639. (HOOD-UK)
13098: Cyprus Radio at 0454 in USB w/voice marker w/this recorded message. "This is Cyprus Radio radiotelephone maritime service." (SD-AU)
13110: Station WLO wkg vessel w/callsign FKIG on CH. 1212 at 1708 in USB. Two pp for FKIG were made via WLO over at 1724. (SI-VA)
13152: Stn WLO on CH.1226 in USB ready to place a call, repeated twice nothing else was heard at 1726. (SI-VA)
13161: HLS, Seoul Radio, South Korea, w/short melody mirror of Beethoven's 9th Symphony "Ode to Joy," between pp in USB at 1335. (TY-JP)
13170: SVN, Athens Radio at 0802 in USB wkg SYIM *M/V Taxirhis* (39013dwt bulker) (HOOD-UK)
13200: SE69, wkg Thule for pp to "Little John Base" at 1524 in USB. (HOOD-UK)
13242: OIL TANK clg an unid stn in USB at 1455. (JM-KY)
13244.2: SHARES BBS up in PACTOR at 1453, active most of the day. (JM-KY)
13264: Shannon Volmet, Ireland, OM opr w/avian wx info in EE and weak in USB at 2024. (TY-JP)
13270: Gander Volmet w/simulcast on 10051, 6604 at 2220. (JK-NY) Volmet stn passing wx and airport conditions for various airports in the United States and Canada at 0250. (CB-GA) All in USB.
13291: Gander Radio at 1641 in USB wkg United 959 then called by Speedbird 178 w/no joy. (HOOD-UK)
13352: The English Lady (E17) at 0202 in AM already in progress w/5F (x2). (MADX-MD)
13434: WGY908, FEMA, Denver, CO, WGY9501, FEMA, WWJ98, FHWA, Pocatello, ID, AFA3OS, USAF MARS, and AFA3HY, USAF MARS in USB at 1420 on FHWA frequency F42. Switched to F14, 4821.0 at 1430. (JM-KY)
13566.5: MKD, Akrotiri Radio, CYP at 0544 in PICOLLO 6 w/idling only. (EW-AU)
13880: The English Lady (E17) at 0400 in AM w/"196 (x many) 438 (x2) 95 (x2)" and into 5FGs (x2). Down at 0420 w/"438 (x2) 95 (x2) 00000." (MADX-MD)
13921: MIW2, Mossad, Israel, hrd in USB at 2215 // 10970. First ever encounter w/ Mossad lady on this freq. (TY-JP)
13927: BAKER CHARLIE 321(mil), rep that the forward and aft rcvrs/xmitters are down at 1544 in USB. BC321 coming back from a testing range in the Norfolk area due to wx. (SI-VA)
13950: NMC1, USCG CAMSPAC at 0432 in GTOR 200/200 wkg unid. (MADX-MD)
13953.2: NMC, USCG CAMSPAC at 0236 in GTOR 300/200 wkg NAQD: USCGC Jarvis WHEC-725. Also at 0342 clg NLPM: USCGC Chase WHEC-718, NYCQ: USCGC Boutwell WHEC-719, NMAG: USCGC Hamilton WHEC-715, and wkg NAQD: USCGC Jarvis WHEC-725. (MADX-MD)
13977: HBD20, Berne Radio, SWI in ARQ 100/170 w/diplo msgs at 0711. (EW-AU)
13986: WRD719, Palo Alto Radio in PACTOR 4 200/170 w/encrypted at 1023. (EW-AU)
13993: AAR1FP, USA MARS, and AFA2WJ with SHARES 99-2. Exercise traffic in USB at 1448. (JM-KY)
14381.5: GXQ, London at 0715 in PICOLLO 6 w/idle eng ch. (EW-AU)
14396.5: WPKJ542, Pacific Bell,

Sacramento, CA, and WNKR878, Pacific Bell, Sacramento, CA in USB at 1757. Moved to NTA NSEP frequency 7552.1 USB at 1800. (JM-KY)

14428: Unid presumed Russian in RTTY 250/75 crypto; sent "QRJ NO QCM K" on FSK morse, then back to crypto RTTY at 1745. (JD-UK)

14663.5: WPKJ542, Pacific Bell, Sacramento, CA and AAR4LL, USA MARS, Memphis, TN in USB at 1652. (JM-KY)

14702: Unid Russian in CW w/"XXX RGT77 05263 SALICILALX 7743 9553 K" at 1245. (JD-UK)

14975: P6Z, Paris Radio, FRN in FEC-A 192/425 w/diplo msgs at 0810. (EW-AU)

14977: VKS737, Adelaide Radio, AUS in USB w/four wheel drive net. (EW-AU)

15873: RFGW, Paris, FRN in FEC-A 192/425 w/diplo msgs at 1250. (EW-AU)

16014: NMG, USCG New Orleans in FAX 120/576 w/wx map at 0103. (EW-AU)

16035: 9VF, Singapore Radio, SNG in FAX 60/288 w/wx map at 0950. (EW-AU)

16074: Unid Russian in CW w/"RJF95 de RJF94 QSA 5 K" at 0805. (JD-UK)

16086: CIA Numbers, USA at 1133 in USB w/ 3/2 LG. (EW-AU)

16198: CIA Numbers, USA at 1340 in USB w/ 3/2 LG. (EW-AU) The CIA Counting stn hrd in AM at 1300 // 14739. (TY-JP)

16261.7: RFTJD, French Forces Libreville at 2109 in ARQ-E3 192/400 w/5LGx129gr msg. Then msg from "Air Grouptam Libreville" to "Air Centops Paris" re: inoperable GPS receiver. Ckt [HAI]. Lots of tfc sent over next 30 minutes. (MADX-MD)

16280.2: RFFA, Paris, FRN at 0938 in ARQ-M2 200/425 w/idling only. (EW-AU)

16303: DFGZ, Belgrade Radio, YUG at 0936 in RTTY 75/425 w/5L grps. (EW-AU)

16357: MKD, RAF Akrotiri, Cyprus, w/2-ch Picc-6, at approx 1400 to 1800. (JD-UK)

16357.5: GYU, Royal Navy Gibraltar at 2205 in PICCOLO-6 minor op chat. (MADX-MD)

16373.2: Indian Embassy sending msgs to "FM India Zahidan to foreign New Delhi" in RTTY 400/50 at 0810. (JD-UK)

16627.7: RFTP, 640 N'Djamena Radio at 0640 in ARQ-E3 200/425 w/idling only. (EW-AU)

16698.5: OXAB2, *M/V Sea Hawk* at 1116 in ARQ wkg OXZ for "INFO" selcal 03465. (HOOD-UK)

16706: UVGA, TKH Mikhail Isakovskiy at 1535 w/msg to USU Sel 67948. UTXB, TKH Donetsk at 1121 w/admin from Km Lysenko to USU (5500dwt ro-ro). All in ARQ. (HOOD-UK)

16706.5: UGOU, TK Kotlas at 0804 in ARQ w/psn rpt from Km Kokarev to UCE. (2853dwt tanker) (HOOD-UK)

16717.5: UFRB, TK Kapitan Pirozhkov at 1124 in ARQ w/msg to Volgotanker Co., Samara, via UJE (4190dwt sea-river tanker). UFQN, T/R Kapitan Permyakov at 1143 in ARQ w/msg to Volgotanker via UJE. (HOOD-UK)

16718.5: WCY5598, *Seacor Vantage* (221-foot, 2283gt) at 0051 in ARQ w/tfc to WCY4528, Gerard Jordan (235', 2983gt), and WCY5535, *Seacor Vanguard* (235', 2983gt). Oil rig supply/servicing vessels in Gulf of Mexico. (MADX-MD)

16800.5: UHFM, SST Midiya at 0726 w/msg to Kosomo Intl Ltd, Moscow, from Km Revenko via UIW. UAME, RTMS Bagrationovsk at 0729 w/crew TGs to UIW. All in RTTY 50/170. (HOOD-UK)

16801: LYOA, Kapitons Alfred Oja at 0718 in RTTY 50/170 w/admin to LYL (ex Petrodvorets, USEP) (HOOD-UK)

16821.5: OXZ, Lyngby Radio, DNK at 0538 in CW w/stn marker. (EW-AU)

16829: USU, Mariupol Radio at 2230 in ARQ wkg unid MV w/TGs in 3sc. Moderate-heavy QRM from KFS on 16829.5. Broken but easily readable. At 2248, into CW call and free idle. At 2256, wkg unid MV (sc: 67865). (MADX-MD)

16829.5: UCE, Arkhangelsk Radio at 0829 in ARQ w/msg to the UCMV, TKH Vlas Nichkov (14203dwt bulker) (HOOD-UK)

16839.5: UFN, Novorossisyk Radio, URS at 0613 in ARQ w/msgs to ships. (EW-AU) UFN Novorossiysk Radio at 0825 in ARQ w/msg status rpt to the UBGX TK Leonid Utesov (16970dwt tanker) (HOOD-UK)

16840.5: UJE, Nizhny Novgorod Radio at 1130 in FEC w/CQ and tfc list (one urgent and 19 others all Volgotanker vsls). Note: vsls are replying in ARQ on 16717.5 not 16717. (HOOD-UK)

16851.5: SAB, Goteborg Radio, SWE at 0641 in CW w/stn marker. (EW-AU)

16869: KHF, Guam Radio, GUM at 0535 in CW w/stn marker. (EW-AU)

16904: UDK2, Murmansk Radio at 1552 in ARQ/CW w/id marker using stn id 3737. (HOOD-UK)

16914.5: SPB, Szczenin Radio, POL at 0630 in CW/SITOR w/stn marker. (EW-AU)

16930: UVA, Gelendzhik Radio at 0807 in CW wkg UAAY *TKH Bugulma* (1900dwt sea-river cargo vsl) (HOOD-UK)

16951.5: RFTJE, French Forces Navy Dakar monitored at 1857 in RTTY 75/660 w/test tape. (MADX-MD)

16960: CKN, Canadian Forces Vancouver, CAN at 0601 in RTTY 75/170 w/FRQ INFO DE CKN. (EW-AU)

16980: UGW, Novorossiysk Radio at 0812 in CW wkg UFXI, BMRT Novorossiskiy Rabochyy. (HOOD-UK)

16986.4: CTP, Oeiras Naval, POR monitored at 0825 in BAUDOT 75/850 w/CTP DE NAWS. (EW-AU)

17036: UCE, Arkhangelsk Radio at 1112 in RTTY 50/170 w/crew TGs to *M/V Blue Pearl*. (HOOD-UK)

17055.1: GYA, Royal Navy London at 0048 in RTTY 75/340 CARB on Ch. 3 of four-channel VFT. At 0205, MGJ, Royal Navy Faslane in RTTY 75/340 CARB on same. (MADX-MD)

17066: UAT, Moscow Radio, URS at 2234 in ARQ w/diplo msgs. (EW-AU)

17101.7: MFA Cairo?, EGY at 0717 in ARQ w/Arabic msgs. (EW-AU)

17152: UIW, Kaliningrad Radio at 0900 in CW w/id and "NAVIP" msgs. (HOOD-UK)

17248: Cyprus Radio in USB voice marker w/recorded message "This is Cyprus Radio Radiotelephone Maritime Service" at 0538. (SD-AU)

17269: BVA, Taipei Radio at 1300 in USB w/tfc list, id, and QSX channels. (HOOD-UK)

17946: Toyko Aeroradio, Japan wkg Northwest 69 in USB monitored at 0404. First encounter w/ Tokyo Aeradio on 17946, new freq? (TY-JP)

18415: 8BY, French Intel, France, sending "VVV W followed by 3FG's separated by a slant bar" in CW at 0916 // 20946. (TY-JP)

18788.9: Unid four-tone system (+300 +100 -100 -300) 195.2 bd, previously heard on 15793.9 at 1140. (JD-UK)

18966.6: RFHJ, French Mil. Tahiti in 96 bd ARQ-E3, w/cct [HJL] to RFLI Martinique, at 1200. (JD-UK)

19724.5: UIW, Kalingrad Radio at 1636 in RTTY 50/170 w/"NAVIP" msgs re: closure areas for various activities including research and missile firings. (MADX-MD)

19782: LZW, Varna Radio at 0810 in USB w/tfc list and QSX 4115.7/8222/12278/12344/18807. (HOOD-UK)

20394: MKD, RAF Akrotiri, Cyprus w/2-ch Picc-6 at 0945. (JD-UK)

22272: V3SW4, unid vsl at 1013 in CW wkg LYL. (HOOD-UK)

22363: UGMS, Kapitan Smelov at 0740 in RTTY 50/170 w/long msg about engineering needs to UGW. (HOOD-UK)

22354: UAYO, *Dmitriy Pokramovich* (MB-0019) at 1015 in RTTY 50/170 w/crew TGs to UDK2. (HOOD-UK)

22395: USU, Mariupol Radio at 0750 in ARQ w/msg to the J8UL4 *M/V Ashik 1* (ex-Komsomolets Adzharii, URHM) (HOOD-UK)

22542: Unid, but JJC is listed on this freq, in FAX 120/576 w/Japanese press monitored at 1430. (JD-UK)

22684.5: A9M, Bahrain Radio at 0805 in CW w/tfc list. (HOOD-UK)

23053.7: Unid, prob Portuguese Diplo at 1905 in ARQ w/weak signal and plaintext Portuguese chatter between two stations. (MADX-MD)

23461: Cherry Pipe nbrs, British M16, Guam, hrd in USB at 1000 // 20414. (TY-JP)

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clandestine communiqué

Tuning In To Anti-Government Radio

Is Hong Kong Ready For A Clandestine Station?

From our "Fat Chance" department, comes word that plans are afoot to start a station which would operate under the name **Hong Kong Voice of Democracy** from within Hong Kong itself. Indeed, if their plan works out, they'll be on the air by the time you read this. They say they intend to broadcast on shortwave because there are no more AM or FM frequencies available in Hong Kong. But our guess is that the government will certainly not grant them a license to broadcast, no matter what frequency range is used. And if they decide to go on the air without benefit of a license, the Chinese will certainly go all out to track down and silence the transmitter. Once caught, they'd probably be facing some jail time as well.

The **Voice of Sudan** runs to 1757 close on **8000** (varying to just a hair below). The government station — the Sudan National Broadcasting Corporation — often uses the same frequency during the same time period. To top it off, there is a music jammer (using upper sideband) also on the frequency, apparently trying to make the Voice of Sudan impossible to hear. If that's the purpose, then it's also messing up reception of the government's broadcasts. Cozy! All three stations leave the air around 1800 which, certainly, is no coincidence.

Long-time clandestine fans will remember the days when anti-Castro broadcaster **La Voz de Alpha 66** broadcast almost nightly from the Miami area using a small used transmitter installed in a van. The host and operator of the station — and of the Alpha 66 organization — Dr. Diego Medina passed away last July. On more than one occasion, the Alpha 66 was located and closed down by the FCC, but the station kept coming back on the air. Later, Alpha 66 abandoned the "pure" clandestine technique and turned to buying time on a couple of Miami mediumwave stations. Later, Medina got the Alpha 66 broadcasts on a couple of shortwave stations and, at his death, was airing the program on WRMI International on 9955. At this writing, we don't know weather the broadcasts of La Voz de Alpha 66 will continue. Medina was the second leader of an anti-Castro organization with a clandestine radio outlet to pass away. The late Jorge Mas Canosa was head of the Cuban-American National Foundation (CANF,) which still airs La Voz de Fundacion on WRMI.

Here's the current line-up of clandestine stations concerned with Korea: **The Voice of the People**, supposedly sponsored by the Korean Workers' Union, beams from South Korea to the North on **3881 and 3912** from 0900 to 2100 and on **6518 and 6600** from 0300 to 0600.

The Voice of Hope, also known by its original name **Echo of Hope**, broadcasts on **6348** from 0300 to 0700, **3985 and 6003** from 1100 to 1800, and **3985** (only) from 2000 to 2300. Like Voice of the People, above, it broadcasts from South to North. This station is said to be speak on behalf of a group called Koreans Living Abroad.

The late Dr. Diego Medina records a program for his station, La Voz de Alpha 66.

The Voice of National Salvation is supposedly backed by a group called the Front For National Salvation and beams from North Korea to the South. It operates from 0300 to 0700 on **3480, 4450, and 4557**; from 1000–1700 on **3480, 4120, 4450, 4557, and 6010,** the latter only to 1400. Also 2000 to 0030 on **3480, 4550, and 4557** and in English from 0030 to 0100 on **3480, 4435, and 4457**. Another frequency, **4400,** is not in use currently but when it is active, it's used in all time frames. With the exception of the half-hour of English noted above, all other broadcasts from the three stations are in Korean.

All three of the Korean clandestines operate through government facilities and there seems little doubt that the organizations mentioned as backers or sponsors are, at best, government-sanctioned. More likely, they are front groups for a government spy or propaganda agency.

The anti-Israeli **Voice of the Palestine Islamic Revolution** operates in Arabic on **11800 and 13660** from 0330 to 0430 and **9870, 11815, 11965, and 13645** from 1845 to 2030. These broadcasts are carried over the facilities of the Voice of the Islamic Revolution of Iran.

The Voice of the Tigers, operated by the Liberation Tigers of Tamil Eelam, opposes the current government of Sri Lanka and supports independence for the Tamil-populated area of Sri Lanka. It operates from 1400 to 1530 on **7382** and 0199 to 0230 on **7460**.

That will do it for this time. Remember that we always welcome information or loggings on clandestine broadcasts, as well as information on QSLs, addresses, schedules, locations, and the organizations which back these stations. Thanks for your continued interest and support.

Until next month, good hunting! ■

BY GERRY L. DEXTER

cb scene

27 MHz Communications Activities

CB Freebander Fined $20,000 — Could YOU Be Next?

On July 12, 1999, in a "Notice of Apparent Liability for Forfeiture," the Tampa District Office of the Commission's Compliance and Information Bureau fined William Flippo of Jupiter, Florida, $20,000. Described as a Freebander by one FCC official and a CBer by others, Mr. Flippo is charged with numerous violations. They include, willful operation of an unlicensed radio station on 28.375 MHz, willful or malicious interference with an on-going amateur radio communications, and failure to make his radio equipment available for inspection by an authorized FCC representative.

A Little History

In November 1997, the Commission's Compliance and Information Bureau, started receiving written complaints from amateur radio operators in the Jupiter, Florida, area, concerning intentional interference to their communications. The amateurs were able to identify Flippo as its source. They were also able to supply audiotapes and the results of close-in monitoring and direction-finding as evidence.

In December 1998, a FCC agent traveled to the Jupiter area and observed Mr. Flippo's communications on Citizens band radio, but not the amateur band. Nonetheless, based on the evidence at hand, in February, 1999, the Tampa District Director issued a Warning Notice to Flippo advising him of the allegations of intentional and malicious interference to amateur radio 2-meter repeaters in the

Charlie Michael Nets For Winter 1999–2000

• Note: For most recent times and frequencies check <http://members.tripod.com/~cm1598/checks.html>

Eastern Daylight Time	Start Time UTC	End Time UTC	Freq.	Mode	Country	Code	Province/State
Sunday							
11 a.m.	1600	1700	27.535	LSB	England	26	South Wales
6 p.m.	2300	0000	27.535	LSB	Canada	9	Nova Scotia
7 p.m.	0000	2330	27.495	LSB	USA	2	Kansas
7:30 p.m.	0030	0100	27.375	LSB	USA	2	North Carolina
8 p.m.	0100	0200	27.535	LSB	USA	2	Pennsylvania
Monday							
8 p.m.	0100	0200	27.365	USB	USA	2	Texas
9 p.m.	0200	0300	27.505	LSB	USA	2	Texas
Tuesday							
8 p.m.	0100	0200	27.545	LSB	Canada	9	Nova Scotia
Wednesday							
8 p.m.	0100	0130	27.505	LSB	USA	2	Mississippi
9:30 p.m.	0230	0330	27.385	LSB	USA	2	Utah
Thursday							
7 p.m.	0000	0200	27.535	LSB	Australia	43	Victoria
8:30 p.m.	0130	0300	27.355	USB	Canada	2	Manitoba
Friday							
8 p.m.	0100	0200	27.535	LSB	USA	2	West Virginia
8 p.m.	0100	0200	27.525	LSB	USA	2	New York
Saturday							
9:30 a.m.	1430	1600	27.535	LSB	USA	2	Pennsylvania
7 p.m.	0000	0100	27.465	LSB	USA	2	Pennsylvania
7 p.m.	0000	0100	27.535	LSB	USA	2	Florida
9 p.m.	0200	0300	27.800	LSB	USA	2	Iowa

BY ED BARNAT <Ed@barnat.com>

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"Transmitting on ham bands without a ticket is just sheer stupidity."

Jupiter area; unlicensed or unauthorized operation of a radio transmitter, and for making false 9-1-1 calls.

Flippo categorically denied all allegations of wrongdoing. However, following the notices, the amateur radio operators in the Jupiter area reported that the intentional interference to their communications had ceased.

In June of 1999, a FCC agent again visited Jupiter, Florida, to investigate renewed complaints of intentional interference to amateur communications in the area. The agent used direction-finding techniques and determined that the interference was coming from Flippo's residence. He also heard taped portions of an amateur radio net which had taken place earlier that same evening on 2-meters, being played on top of on-going amateur communications in the 10-meter band on 28.375 MHz. The FCC agent then, with the assistance of the Palm Beach Sheriff's Department, attempted to inspect Mr. Flippo's radio station. Flippo refused to allow the inspection. Flippo was warned about the consequences of refusing to allow the inspection, but again denied the request.

New Life At The Commission

For the past two years, there has been a renewed interest in enforcement at the FCC. This activity seems to be largely due to one man, Riley Hollingsworth. Hollingsworth is the Commission's new "Legal Advisor on Enforcement to the Compliance and Information Bureau."

Hollingsworth's first targets were pirate radio stations. Pirate stations are those that operate in the commercial AM and FM broadcast bands without proper licenses. Starting early last year, Hollingsworth turned his attention to the ham bands. Since then, it seems that hardly a week goes by when one or more notices of fines or apparent violations aren't issued. The man is serious about his job and he is very good at it.

Could You Be Next?

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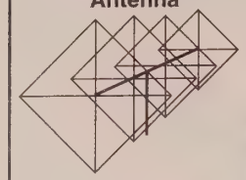

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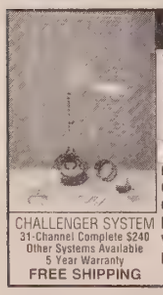

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they venture into the amateur bands, as did William Flippo. For the most part, though, Hollingsworth, in a recent interview, said, "No, I only cover the amateur bands. However, some of the actions I've taken do involve operation on the Freeband and Citizens band by amateurs."

That, however, is all subject to change because there are major changes underway at the FCC. "We have a new enforcement bureau starting October 1, 1999," Hollingsworth said, "which will be the enforcement bureau for all of the services. The chairman wants enforcement at the Commission to have the same respect as that of the Securities and Exchange Commission, or the Federal Trade Commission, or even the IRS, so I would think that you would see some action along those lines, too."

Freebanders Beware

While the Commission officially describes Mr. Flippo as a Citizens Band radio operator, the FCC's Hollingsworth sees him as a Freebander. This point was made painfully clear in a hand-written note on the cover page of the FAX I received with a copy of the action against Flippo. On it, Hollingsworth wrote, "Note 20K fine to Freebander."

If his view of the Freeband is widespread at the Commission, particularly among the members of the new enforcement bureau, it could mean trouble for those who operate there. Further, it would be a major roadblock for those who have aspirations of seeing the band legalized.

Is Flippo a Freebander? True, Flippo had the right equipment and I would not be surprised if he used the band, but does that make him a Freebander? Gee, he also had amateur equipment and used the ham bands as well, but that did not make him an amateur. From what I know of the Freeband, Flippo's actions fly in the face of all that it stands for. Since Hollingsworth thinks otherwise, however, it seemed the subject was open to debate, we had a tie, one yea and one nay. Obviously, a little more input was needed to arrive at a proper conclusion. So, I decided to check with some folks who should know — Freebanders.

Freebander's View

Among the Freebanders I was fortunate enough to contact was Jim, 2AT101. Jim, a retired New York City firefighter, is New York Supervisor for Alfa Tango, one of the oldest and largest international 11-meter groups. His duties include guiding new operators into the group and running the Alfa Tango Tri-State DX net. The net, which meets every Sunday at 13:00 UTC on 27.720 USB, celebrates its 6th anniversary the third Sunday of October 1999 and has heard from thousands of operators and from over 130 countries.

". . . there are major changes underway at the FCC."

"I hope," writes Jim, "this is the last time that I hear the name William Flippo and the term 'Freebander' in the same sentence. I sincerely hope that operators that frequent other bands do not think that this type of individual is what makes up the length and breadth of 27-MHz operators."

"I know I must sound like the ultimate hypocrite," he continues, "when I say that what William did was 100% illegal, and what we do on 27-MHz is only 30% illegal. So as the rules now stand, I know that I am breaking the law. BUT, I would like to bring to light that in using these otherwise vacant frequencies, we also bring courtesy, professionalism, and respect in promoting friendship worldwide via the radio airwaves."

He continued, "Although there are many 11-meter groups on frequency, the group to which I belong 'Gruppo Radio Italia' states our frequencies to be used run from 27.405–27.855; 27.555 by a worldwide gentlemen's agreement has been designated an international calling frequency. Example: Make your CQDX call, state your QSY frequency, and do just that, QSY. We also have designated frequencies for DXpeditions, special event stations, and contest stations. We also a designated frequency for I.O.T.A. (Islands on the Air) activation. I hope the 'powers that be,' in seeing what we do and how we do it, might just raise an eyebrow instead of grinding their teeth."

I also heard from several members of the Charlie Michael group. Charlie Michael, one of the newer groups on the band, has members is several countries, and hosts a number of nets each week (see sidebar for time/frequency).

"Well," says 2 CM 1698, Mike, "I'm glad he got caught. Most of my CB buddies and even some hams told me don't key up over 28 flat or under 26 flat, keep the power in line, don't get to greedy, and don't interfere with the hams!"

"In my opinion," writes 2 CM 1598, Fran, "it's good that idiots like that get busted. They give all the good operators

around the world a bad name. I mean we all know it's illegal to be transmitting where we are, but that's one thing. Transmitting on ham bands without a ticket is just sheer stupidity. I know, at least in this area, there are hams who monitor the bands, especially the 10-meter band. Why go there? How dumb do you have to be? This, and other reasons, is why in the FCC's eyes, we are all the same."

"That gentlemen you mention — William Flippo," group president Tony 2 CM 241 says, "well, he is operating from 28 and up. I fail to see what it has to do with the 11-meter band! As president of this group, I say please stay away from the ham bands."

Well, it appears that the participants in this little poll are of one mind on at least two points. One, Flippo is no Freebander. Two, they are glad he got caught.

Light On The Horizon

Once again, recent events make clear that CB and the Freeband need some kind of organized effort to protect and promote the hobby. For the first time in recent history, however, there may be an effort underway to do just that.

Responding to one of my many pleas for someone to get the ball rolling, Jim Tonak has offered to take the first step. Jim has put up an interesting Webpage to test the waters at <http://home.att.net/~uscb_association/>. Stop by, sign in, take the poll, and give him some much-needed encouragement.

November And December CB Mixers

Looking for a little chatter on the CB? Then plan on attending the next, now regularly-scheduled, on-air CB Mixer. They are held, wherever you are, on the last Saturday of the month (the next two will be on the 27th of November and 25th of December from 9 p.m. until 10 p.m. local time. SSB operators work channel 36 LSB. AM operators work channel 23. For complete guidelines, see the November 1998 issue of *Popular Communications* or drop me a note.

Well, that's it for now. Thanks for writing me here at the magazine or via the Internet, where my address <ed@barnat.com>. And as always, if you can (especially on November 27th and December 25th) — catch me on the radio! 73 ■

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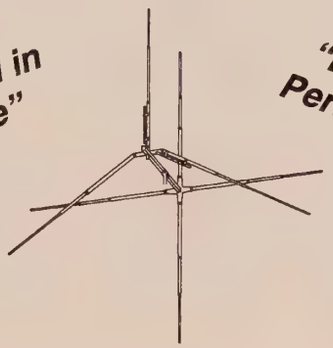

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DX, News, And Views Of AM And FM Broadcasting

CBC Has FM Priority In Canada

In the Broadcasting Act of 1936, Parliament mandated that the Canadian Broadcasting Corporation (CBC) cover all of Canada using the best available frequencies. In 1936, 50,000-watt clear channel AM radio stations provided the best coverage. Today, many AM stations in Canada seek permission to move to FM for improved service, under the condition that they surrender their AM licenses. However, the CBC has top-priority over any available FM frequencies, including those that remain open in major markets like Montreal and Toronto.

One example of a case where the CBC was granted a FM frequency over a commercial broadcaster occurred in Montreal, where CKVL at 850 AM was denied a move to 95.1 FM in favor of CBC French-language AM station CBF at 690 kHz. Of course, 690 is now silent in Montreal, as CBF completed the move to 95.1 last winter. Meanwhile, CKVL has been granted a move to 940, once occupied by CBM, now on 88.5 in Montreal. This was over the objection of the CBC, which had proposed a new French-language all-news service for the frequency. Perhaps the CKVL move to 940 was granted as a concession, since their FM application was denied.

The next CBC clear channel stations to move to FM will be CBJ Chicoutimi, Quebec, on 1580 kHz. The CBC French-language programs of CBJ will be found on 93.7 FM.

Some CBC stations have remained on AM clear channels. CJBC Toronto can still be heard over a wide area on 860 in French, CBA Moncton, New Brunswick, covers the Maritimes on 1070, and CBE Windsor, Ontario, still occupies 1550 with CBC English programs. CJBC is also heard on 90.3, CBA on 95.5, and CBE is relayed by CBEE 88.1 and CBEG 90.3 FM. Because these stations are already on FM, there's a good chance that they will remain on AM, thus giving DXers the opportunity to continue enjoying CBC programs.

Y2K Compliant DX Test

KSTN Stockton, California, on 1420 is planning another DX test on New Year's Day 2000. This will be the sixth annual KSTN DX test, scheduled to begin at the stroke of midnight (Pacific Time) on the morning of January 1st. "With all the Y2K scare going on, this will be a great excuse to listen to the radio and hear if California is still on the map!" suggests KSTN Chief Engineer Paul Shinn.

"Just like years before, I invite DXers to call the station request line and go on the air to wish New Year's greetings to friends around the world. The request line number is (209) 948-1420. In fact, I plan to make it part of the show to ask people far away if everything is OK or not (regarding the Y2K bug). This year, one of the reporters from our local paper requested to be in the studio to answer the phone, so I might have some help this time. Last year, the phone was crazy! Lots of calls from overseas and all over the country. I put over 30 people on the air! The format will again be '70s disco music (so you can REALLY tell if you have the right station) and the ID will be in Morse code every 15 minutes."

Paul will be doing a drawing from all the reception reports received before the end of February, and giving away some big electronic part of the vintage 5,000-watt Collins transmitter used during the test. Last year, Patrick Martin won a big power tube from the final amplifier section. Personal letters on station letterhead (no form letters) will verify correct reports, and promotional items, like bumper stickers and cards, will be included. The address is KSTN, 2171 Ralph Avenue, Stockton, CA 95206.

News In Brief

Metro Traffic and Shadow Traffic are now one in the same. Metro was recently purchased by radio network giant Westwood One, which already holds Shadow Traffic among its many broadcast services.

UPI has sold its "World Web" radio network news service to AP. UPI is redirecting its efforts toward the Internet.

Among the many Cuban athletes who defected during the Pan American Games in Canada was correspondent Lisette Cepero of Radio Rebelde. Cuba claimed that defections were encouraged through the media.

2KY Racing Radio has started experimental digital broadcasting in Parramatta, New South Wales, Australia. 2KY provides programs to a network of stations in New South Wales. The network flagship is on 1017 AM in Parramatta. The start of regular digital broadcasts is targeted for 2001, with the minister of communications calling for analog broadcasting to be phased out by 2021. In the meantime, a number of 5 kW AM stations hope to increase power to 10 kW,

A QSL from CBL, Toronto on their last day of broadcasting on 740 AM.

BY BRUCE CONTI <BAConti@aol.com>

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KCPM-LP	KCUT-LP	Fisher, MN
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KHII-FM	KBOD	Cloudcroft, NM
KHMM-LP	K16CW	Hanford, CA
KLAB-FM	KHYF	Taos, NM
KLBP-AM	WLOL	Brooklyn Park, MN
KLMB-LP	K23EP	El Dorado, AR
KMIC-AM	KYOK	Houston TX
KMMB-LP	K04OB	Bakersfield, CA
KMPS-AM	KRPM	Seattle, WA
KMUM-LP	K15CY	Sacramento, CA
KSGR-FM	KRMP	Portland, TX
KSIT-FM	KMKX	Rock Springs WY
KSUD-FM	KAFW	Turrell, AR
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WAQY-FM	WAQY-FM	Springfield, MA
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WDLL-AM	WMXN	Waterbury, VT
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WGSE-AM	WMXY	Hogansville, GA
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WSKL-FM	WARL	Veedersburg, IN
WSRI-FM	WBVE	Beulah, MI
WTAZ-AM	WOAM	Peoria, IL
WTLD-FM	WBKF	Jesup, GA
WULV-FM	WKYI	Stamping Ground, KY
WUSJ-FM	WKXS	Jackson, MS
WVGA-FM	WHFE	Lakeland, GA
WVTN-LP	W48BD	Corbin, KY
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WZMT-FM	WOQI	Ponce, PR

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K249AB	97.7 MHz	Sidney, MT
K252AD	98.3 MHz	White Sulphur Spring, MT
K265CR	100.9 MHz	Red Lodge, MT
K269AQ	101.7 MHz	Opheim, MT
K280BO	103.9 MHz	Colstrip, MT
K292CD	106.3 MHz	Whitefish, MT
K296AH	107.1 MHz	Ennis, MT
W210AU	89.9 MHz	Lawrenceburg, TN
W210AU	89.9 MHz	Lawrenceburg, TN
W217AG	91.3 MHz	Shelbyville, TN
W300AP	107.9 MHz	Gainesville, GA
WITC	88.9 MHz	Cazenovia, NY
WPSA	98.3 MHz	Paul Smiths, NY
WQRO	1080 kHz	Huntingdon, PA

Changed Facilities

K201EO	88.1 MHz	Boise, ID	Chng pwr and ant
K201EO	88.1 MHz	Boise, ID	Chng pwr and ant
K213CX	90.5 MHz	Laramie, WY	Changes in ant system
K213CZ	90.7 MHz	Coos Bay, OR	Chng frequency
K214CY	90.7 MHz	Maili, HI	Relocate, chng primary station
K214DG	90.7 MHz	Fayetteville, AR	Change power
K220DK	91.9 MHz	Buffalo, WY	Chng pwr and ant, relocate
K279AF	103.7 MHz	Skagway, AK	Change power
KBFN	104.5 MHz	Big Sky, MT	Change power
KISQ-FM3	98.1 MHz	Walnut Creek,CA	Change power
KLAR	1300 kHz	Laredo, TX	Chng power and ant
KVSS	88.9 MHz	Omaha, NE	Change power
KVSS	88.9 MHz	Omaha, NE	Change power
KYMX-CBS	96.1 MHz	Sacramento, CA	New aux ant system
W204BG	88.3 MHz	Effingham, IL	Chng frequency
W205BM	88.9 MHz	Mount Kisco, NY	Change power
W19CG	91.1 MHz	Wilkes-Barre, PA	Chng freq and power
W249BC	97.7 MHz	Mattydale, NY	Change power
WDYL	101.1 MHz	Chester, VA	Change frequency
WDYL	101.1 MHz	Chester, VA	Change frequency
WIGM	1490 kHz	Medford, WI	Change tl
WJBT	92.7 MHz	Green Cove Springs, FL	Chng pwr & ant
WLCX	90.1 MHz	Farmville, VA	Change frequency
WPFR	93.9 MHz	Clinton, IN	Chng pwr, ant & studio loc.
WPFR	93.9 MHz	Clinton, IN	Chng pwr, ant & studio loc.
WRRA	1290 kHz	Fredericksted, VI	Chng pwr and ant
WVAB	1550 kHz	Virginia Beach, VA	Change tl.
WWBG	1470 kHz	Greensboro, NC	Chng nite pwr & tl
WYEA	1290 kHz	Sylacauga, AL	Add nite service 249W, chng tl

which should give transpacific DXers some new targets.

QSL Information

650 KGAB Orchard Valley, Wyoming, received form in 11 days from Doug Guyer, CE for KGAB, KLEN, KOLZ, KIGN, and KMUS. Address: KGAB Radio, 1912 Capitol Avenue #300, Cheyenne, WY 82001. (Martin, OR)

810 CKJS Winnipeg, Manitoba, veri letter in 10 days for taped report, signed Don Trueman — CE. Address: 520 Corydon Avenue, Winnipeg MB R3L 0P1. Logged while KGO was off, mixing with WGY; I am pleased with this, as they are directional to the north with little signal to the west. (Martin, OR)

1590 KIHM Sun Valley, Nevada, received friendly letter in 90 days after

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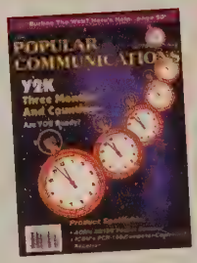

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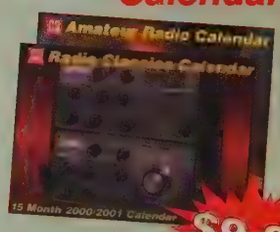

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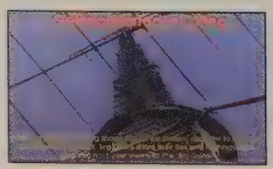

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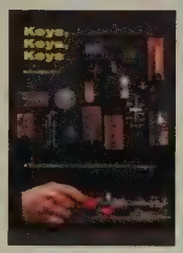
by Dave Ingram, K4TWJ



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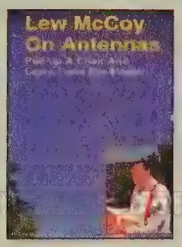

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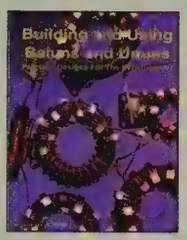

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follow-up from Lawrence Vosper "Voz" KB7VT, mentioning I heard them with 67 watts. Address: KIHM, Catholic Radio, 3550 Barron Way, Ste. #B, Reno, NV 89510. Also mentioned they took over 920, moving from 1590, which is now Spanish. (Martin, OR)

1620 KSMH Auburn, California, received 2nd QSL in 90 days from taped report, this one in a form letter signed Tricia Lemmon, Development Manager. Address: P.O. Box 180, Tahoma, CA 96142. (Martin, OR)

Broadcast Loggings

This month's selected loggings begin with news of another station preparing to take to the airwaves on the AM expanded band. Patrick Griffith of Colorado writes, "I made it over to the proposed site for **KBDJ 1650** and the relocated **KRKS 990** (Denver). It's still an empty field (actually it is being farmed) but there was an official Notice of Public Hearing posted, stating that the owner is requesting a permit to install "2 AM radio towers." KRKS is a two-tower U2, so it appears certain that KBDJ will be multiplexed into one of the new KRKS towers."

Dale Park in Hawaii reports that **KHVH on 830** was off the air due to a transmitter part failure. Chief engineer Dale Machado, who was once the CE at Dale Park's old station, KTUH-FM, located a replacement part "in, of all places, Nova Scotia!" Dale Park says it was clear sailing for **WBAP and KGNW on 820, KNCO and WCCO on 830, and WHAS on 840,** while KHVH was off. More tips from Dale; "KULA 1460 is now KGMZ, still simulcasting the oldies format of KGMZ-FM 107.9, using the slogan 'More Music, One-Oldies-Seven-Point-Nine.' This marks the end of KULA's third tour of duty in Hawaii as a callsign; KULA was previously a TV station, then the original name of KSSK-FM (92.3). For some reason, the official station ID is made at 10 minutes before the hour. Don't forget to point this out in your reception report. Also, KUAU 1570 has not been heard since May, so their testing was obviously done in order to hold on to the license."

From the Pacific to the Atlantic, congratulations to Jean Burnell of Newfoundland, who finally scored Chile, a long-time target. "It wasn't one of the big stations (that I'm surprised we have not heard yet), but a little 1 kW outfit on 1570," says Jean.

Last but not least, welcome to new reporter Dan Gillespie from Ada, Michigan. Dan writes, "I have gotten back into SWL after about a 30-year absence (now 42). I have a RadioShack DX-394 with a longwire antenna in the backyard. Utility communications has been my main interest, but lately I have been listening to late night AM broadcasts. I hope to write and get QSLs from these stations. Will pass along info if I do." Dan kicks off the logs, all times are UTC.

590 WKZO Kalamazoo, Michigan, at 0026 commercials and Mets vs. Orioles baseball game. (Gillespie, MI)

650 WSM Nashville, Tennessee, at 0340 station ID and traditional country music with discussion of each artist, in heavy noise here. (Gillespie, MI)

710 unID, French folk songs at 0345 with good signal. (Gillespie, MI) Probably CKVM Ville-Marie, Quebec, heard often here over WOR New York. (Conti, NH)

720 WGN Chicago, Illinois, at 0028 talk radio with discussion of George Magazine in light of JFK Jr. death. (Gillespie, MI)

770 WABC New York, New York, at 0350 with an excellent signal, commercials, and reference to Art Bell show coming up soon. (Gillespie, MI)

830 WEEU Reading, Pennsylvania, noted testing with an open carrier and a test announcement/ID by a woman every minute. This station has an application to move here from 850 kHz but I had seen nothing about a construction permit being issued. Fairly good here, about S7. (Merriman, VA)

920 CJCJ Woodstock, New Brunswick, at 0045 good with "CJ, number one for summer fun" ID and contemporary hits in WHJJ null. (Conti, NH)

Scan Our Web Site

940 XEQ Mexico City, Mexico, at 0430 good with sports report and ad, "En beisbol, la cerveza es Corona," over WIPR Puerto Rico. (Conti, NH)

1179 Romania Actualitata, Galbeni, Romania, 0207–0212 parallel 1152; news and weather in Romanian, and lively jazz music. WRTH incorrectly lists this one on 1178 kHz. (Burnell, NF)

1270 CJCB Sydney, Nova Scotia, at 0400 good, "From Sydney at 1270 on the AM dial, this is CJCB, a Maritime Broadcasting System station" and country music over CFGT. (Conti, NH)

1296 Reba, Sudan, 0255–0302 an interval signal of approximately 11 notes kept repeating from 0255 to 0300, the signal gained strength all the while. A few times Spain was noted in the background, but Sudan was fully dominant and loud at 0300 when announcements in Arabic were made by a man. A stern-sounding male Koranic vocal with slight reverb (perhaps room acoustic echoes) came on at 0302, the signal was massive (way over S9) at the time. This was the highlight of the night's DX session. (Connelly, MA)

1404 Romania Actualitata, Sighet, Romania, 0218–0221 with interference from France; jazz music, clearly parallel 1179 and 1152. (Burnell, NF)

1570 R. Familia (CC157), Talca, Chile, 0001–0015 with interference mainly from R. Amanecer; Spanish news and talk about human rights, ID at 0007, then seemed to join R. Cooperativa feed for football game coverage, so lots of "Radio Cooperativa" IDs and mentions of "Colo-Colo." This station was also recently heard by Paul Ormandy (New Zealand) who had also noted ads for stores in Talca. I thank Paul for assistance in nailing this one down! Thus, this seems to be a new slogan for CC157 (1 kW), listed in WRTH as "Radio Campanario." (Burnell, NF)

1570 R. Amanecer Internacional (HIAJ), Santo Domingo, Dominican Republic, 0153–0201 with no detectable signal from Chile; religious music, ID, and promos all in Spanish. (Burnell, NF)

1575.47 R. Northsea International, Clacton-on-Sea, England, 2325–0000 weak, but from time-to-time fading up with comprehensible audio; pop tunes from the late '60s, male DJ ID'd as "R-N-I" and gave a Website. This is a Restricted Service Licence (RSL) station to commemorate the 175th anniversary of the Royal National Lifeboat Institution. I believe the broadcast is from the old RNI pirate ship, Mebo-II. I used to listen to RNI (and R. Veronica) when I was working in Holland in the late 1960s, when they were bona fide North Sea pirates, and this sounded just the same. (Burnell, NF)

1640 KDIA Vallejo, California, after being off, signed-on at 0700 as "The Light" parallel 1190, Catholic programming but not the same as KSMH. Per a phone call to the station and Gary Jackson, they will keep the classic KDIA call letters. (Martin,OR)

Finally, in the "oops" department, KGXL Torrance, California, on 1650 was recently listed here as a Spanish-language station. George Schwenk caught the error, indicating that KGXL has never had a Spanish format. "Currently, it is running Westwood One's Memory Music format, which it calls Adult Standards." My mistake. Thank you, George, for the correction. Thanks also to Jean Burnell, Mark Connelly, Dan Gillespie, Patrick Griffith, Patrick Martin, Al Merriman, Dale Park, and Paul Shinn. 73 ■

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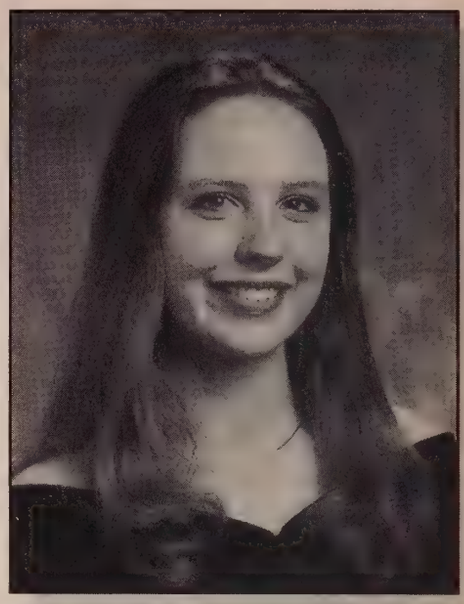
Tuning In *(from page 4)*

they can do with the computer beyond surfing the Internet and playing games. Show them what they *can do* with radio! It's a no-brainer to sit in a chat room for hours and quite another to challenge their minds with amateur radio AND the computer as they watch the meters come to life by hooking up the radio to the beast!

People today want instant gratification. Get to it and get there quickly so they can go on and do it again tomorrow. What better instant gratification than getting them involved in helping in their community (God knows, they might even meet someone their own age outside of the school environment and begin a lifelong relationship, thereby reducing the chances you'll hear the "What can I do this weekend?" and "I don't have any friends" songs). Hardly a weekend goes by when there isn't a public event going on in *any* community. And in these wild, uncertain times, don't forget disaster preparedness, because if the last few months have taught us anything, it's that anything can happen anywhere, anytime. And level-headed, trained radio operators and monitors *can, and do make a difference!*

Chances are Michelle Swann KE4EZ, of Warner Robins, Georgia, got interested in radio because of her parents — and she wanted to make a difference. This 17-year old amateur operator is the eldest daughter of Mark, KR4YH and Jean, KE4GRO Swann. Her sister, Tiffany, is also licensed (KF4DGT). Michelle, this year's "Young Ham of the Year," is deeply involved in emergency service communications. Check out her amateur radio resume: Her six-year amateur radio career has been dedicated almost exclusively to public service work, including support communications during the 1994 Georgia floods and last year's Atlanta tornadoes. A very compassionate person and a devout Christian, Michelle says that visiting the site of the tornadoes' devastation had a major impact on her. "I actually got to be net control for a few hours and relayed information. But I also got to go into the places where the tornadoes had hit and I have never seen anything that has affected me so much because these people had just lost half of everything that they had — and I can just imagine the trauma that they were going through . . . and I just think that it's great that through ham radio and the Georgia Baptist Disaster Relief that I can help somebody who is really in need."

As "Young Ham of the Year," Michelle received — courtesy of Yaesu USA — an expense-paid trip to the 1999 Huntsville Hamfest, along with a gift of Yaesu ham radio equipment. CQ Magazine will treat her to an expense-paid week at Spacecamp Huntsville and presented her with a variety of CQ products. Bill Pasternak's (WA6ITF) Amateur Radio Newsline provided Michelle with a commemorative plaque at the award ceremony.



Michelle Swann

In addition to Michelle's work with the Georgia Baptist Disaster Relief organization, she is a member of the Middle Georgia Radio Association ARES (Amateur Radio Emergency Service) and several other amateur radio organizations. She is also a trained severe weather spotter and has worked with the Red Cross and the National Weather Service SKYWARN Spotter nets. Her other interests include music and gardening.

A recent graduate of Houston County (Georgia) High School, Michelle has been accepted to some of the nation's top engineering schools, including the Georgia Institute of Technology, the Massachusetts Institute of Technology, the California Institute of Technology, and Stanford University. She has chosen to enroll at the California Institute of Technology and will be in class this fall.

Look again at that calendar. Bringing young folks into the radio fraternity is our number-one priority. In Michelle's words, "I think it's really neat. It has also been something that we have all been able to do together as a family and it has really enriched us. Whenever we learn things about ham radio, we learn it together." Congratulations, Michelle!

It's obvious that KE4EZ has the brains, compassion, and foresight to successfully bring amateur radio into the next Millennium. What about you? Seize the moment before you trash another month. ■

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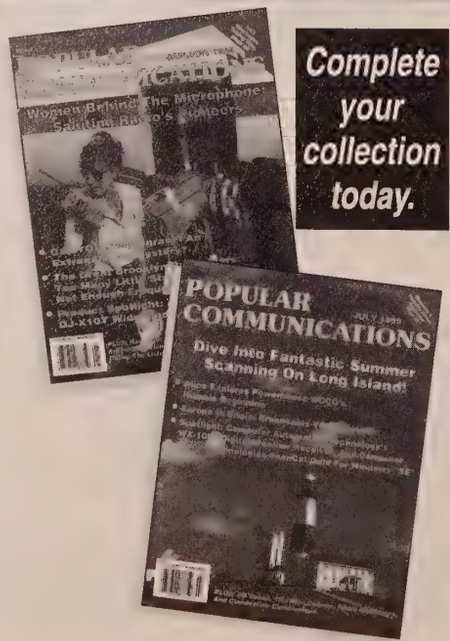

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FCC Actions Affecting Communications

A Return To Licensed CB Operations?

If Congress has its way, we could see a swift return to licensed CB stations as an option. Sort of **H.R. 2346** is this year's version of S. 608, the bill that would have allowed state and local enforcement of the FCC's Citizens Band radio service rules. In recent years, visible antennas in residential districts and elsewhere have become politically incorrect. Fears, exaggerated or imagined, of radio frequency "radiation" causing illness and interfering with home electronic devices, prevail. Opponents of S. 608 had visions of local authorities run amuck, busting anyone seen with a large antenna mounted on their home or vehicle. Hams feared being issued cease-and-desist orders by overzealous local officials who might not know an amateur HF rig from a toaster oven, let alone from a CB radio. Granted, S. 608 had been amended to specifically exempt licensed radio amateurs from local enforcement, but the bill offered little protection from harassment to legitimate CB operators exercising their privilege to communicate with family, friends, and business.

With S. 608 now a dead issue, Congressman Vernon J. Ehlers of Michigan has introduced its replacement bill, H.R. 2346, attempting, once again, to authorize local jurisdictions to enforce standing FCC CB radio regulations. Is this more of the same medicine? Not exactly. The first provision of the bill specifically allows state or local governments, by statute or ordinance, to prohibit two things. One is "use of citizens band radio equipment not authorized by the Commission" (FCC). The other prohibition is "unauthorized operation of citizens band radio equipment on a frequency between 24 MHz and 35 MHz." Now here's the twist. The very next provision states that "a station" licensed by the FCC "in any radio service . . . shall not be subject to action by a state or local government under this subsection." If you have a station license in the amateur, GMRS, business, marine, or even the proposed low-power FM broadcast service, then state and local authority would be effectively precluded from taking any "action" against any CB radio operation at such station. In simple terms, if a CB operator also holds a FCC station license for another radio service, then he or she should not be subject to local investigation and enforcement relating to operation of his or her CB station.

Another clause in H.R. 2346 states that "probable cause" must be found before state or local government may enforce the bill's CB radio prohibitions on board a "commercial motor vehicle" as defined in 49 USC ß31101. Presumably, this clause is intended to preclude local authorities from investigating over-the-road truckers at whim, just because their rig is equipped with CB.

It is a simple matter to acquire a FCC station license. We all know that the amateur Technician license only requires a multiple-choice written examination. Probably the easiest license to acquire is the General Mobile Radio Service license. GMRS is the licensed FM citizens band, operating in the 460-MHz range. There is no examination, although there is a somewhat complicated application form, and a fee to pay. Does anyone still have a VHF marine license? If so, you could then legally operate your CB fearlessly from your boat. The more-or-less blanket exemption from local government proceedings affecting CB operation offered by H.R. 2346 may be a substantial incentive for many CB operators to seek some kind of FCC station license. The converse side of this bill's effect is that shoddy and illegal CB operators, including 27–28 MHz "outbanders" would be offered the same protection, again, just by possessing an FCC license for a station in any radio service. As of this writing, H.R. 2346 has only been referred to the House Subcommittee on Telecommunications, chaired by well-known Congressman Billy Tauzin. We'll be carefully watching the progress of this bill.

A New Wireless Medical Telemetry Service

Proposed by the FCC in **FCC Docket 99-182** in July, the Commission's intent is to provide spectrum where short-range transmissions from devices, such as heart monitors, could operate on a primary non-interference basis. Presently, these medical devices operate either under FCC Part 15 rules (low-power unlicensed transmitters) or under Part 90 rules (commercial, business, and public safety land mobile). Part 15 operations are permitted on TV channels 7–13 (174–216 MHz) and channels 14–46 (470–668 MHz), provided they cause no interference. Medical telemetry is also permitted under Part 90 at 450–470 MHz only on a secondary basis to others users of the band. Due to the life-safety factor of medical telemetry operation, some unencumbered frequencies are desired. Recommendations for this proposed spectrum allocation were submitted by the American Hospital Association, according to the FCC. Possible new primary frequency assignments are in the 608–614, 1391–1400, and 1429–1432 MHz ranges. At press time, this docket was still in the notice-and-comment stage.

Pop'Comm is always interested in hearing what our readers would like to see. This column is for you, so let us know! I can be reached at the E-mail address on the bottom of the first page. So long until next month, when we will see what else Congress and the FCC have cooked up. ■

BY ALAN DIXON, N3HOE <n3hoe@juno.com>

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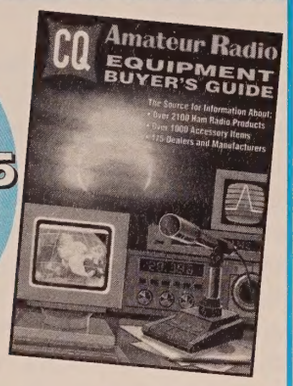

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the loose connection

Radio Communications Humor

Bill Finally Prepares For Y2K

Do you know what caused the "Dark Ages?" The Y1K bug. Even the jokes are suffering as the time grows near for our unknown enemy, the Y2K bug. The Millennium bug. Humbug.

I wonder if after the Millennium parties are over, all the Mazdas by that name will refuse to take their owners home from the revelry. Knowing the highways at 2 a.m. on any New Years' Day, I'd think that a car's failure to start at *that* date and time would be called a *safety feature.*

Gun magazines are recommending we arm ourselves to the teeth (but *never* put a bullet in your mouth — they contain *lead!)* while our own beloved editor, Harold *"I got my radios to keep me warm"* Ort has shown us a simple solar system to keep us communicating well into the next century with no electric bill.

Financial magazines tell us how to manage funds, set aside cash, and even profit from the panic which may arise, and lately, I just heard that our favorite convenience-store chain is the first to admit they'll overstock the "panic" items in hopes of a profitable new year. At least they're honest about it.

I have always lived where it snows, and even now, in Virginia's horse country, we get sufficient flakes to cause a run on bread, milk, and toilet paper as the first one hits the ground. No — I meant *snow* flakes! People who don't even *drink* milk buy a couple gallons out of some sense of belonging — conforming to what everyone else is doing.

If our national population reacts like this to a little snow (and they will), I figure the best place to be during all this is *nowhere near a store!* You readers who have never lived where it snows will just have to imagine a bunch of stupid people buying twice as bread and milk as they could possibly use because it's snowing.

I figure that of the choices each citizen can make as we approach the dread *fin-de-siecle,* most — a good 80 percent — will opt for Panic. There will be varying degrees of panic, ranging from *"You forgot beer?"* to cries of *"We're gonna die!"* heard at 12:01 a.m. in some neighborhoods. Those of you already living in survival camps have not been included in these statistics. Of the remaining 20 percent, about half will appear calm because they've already secreted a years stash of flour, water, and "AA" batteries in their unused fallout shelters and filled out all their "send no CD this month" cards six months in advance. Of those remaining, yet half will run to those local convenience stores at about 11:30 that night, proving that there are indeed *several* born every minute. Let's hope they arrive there with the money that the financial magazines have urged them to put away, and not the stuff recommended by *Kill It If It Moves* monthly.

The remaining few, the sane ones will be home, listening to scanners and shortwave radios, as the Good Lord intended us to do. We'll hear BBC reports from around the world telling how Third-world and developing nations are experiencing virtually no problems — nary a hiccup in their day-to-day lifestyle or operations. They'll continue sowing and harvesting, cooking and eating, living and dying, as nature has taught them. In the more macho countries — those, for instance, which require facial hair as evidence of virility — there will be shooting and punching, occasional stabbings, and much stone-throwing by the children (and by some of the women with heavier facial hair).

Our neighbors to the north — how I love 'em — our Canadian friends will be knocking on a neighbor's door, asking "Care to trade some food for some water? I've got my own spring," and hearing "Good idea — I've got quite a bit here in the pantry — let's have a look." I think it's the air that makes them so polite. Someday, there'll be a TV show called "Enrage the Canadian," where the first American who can cause a 10-point increase in a Canadian's diastolic blood-pressure will win a (well-deserved) trip to Argentia, Newfoundland — to cool off. I doubt they'd refuse to help us, but if they've got a lick of good sense, they'll close their borders for a day or two.

My hapless friend Norm assures me that he's taken care of all the necessities, in order of their importance. A 25 KVA propane-fired generator will power his ham radio gear and a kerosene space heater will keep him and his trusty spaniel, Chump, warm and happy. "What will you eat?" I asked him.

"Ramen Noodles. I got 12 for a buck, old man," he told me. "And I live by a river, so water's no problem. I can heat them over the finals in my AM transmitter."

Here at "Spider-Gulch," the sprawling Price Estate, we've taken a different approach to the alleged Y2K problems: We're doing nothing. As always, we'll have two days worth of leftovers in the fridge, a couple gallons of bottled drinking water (the well water here has so much lime you could serve it with gin), and a half-loaf of bread. We'll take an extra $20 from the ATM on New Year's Eve, but we'll probably end up spending a good five of that on ice cream. And two bucks on bagels for breakfast.

Thanks to a major merchandiser's pricing error, I've stocked up on "AA" batteries — enough to run the fridge and the well-pump for a few days — and I'll be enjoying my portable shortwave radios well into the next century. We're surrounded by cows, and although their owner may ask us to help guard against milk-thieves in the night, we'll have enough to make ice-cream — nature's *truly* most perfect food.

I have purchased a pad and a pen; a fountain pen, to be exact, and a few stamps and envelopes. I'll continue writing by candlelight, if necessary, so the folks at *Pop'Comm* World Headquarters will have their columns on time, and the cows' owner has assured me that I may ride one of the sturdier steers to the post office.

Life is good. Stay well. No mean stuff over New Year's Eve — OK? ■

BY BILL PRICE, N3AVY

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